WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
OREGON

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE

and

OREGON STATE UNIVERSITY

and

STATE ENGINEER of OREGON

Data included in this report were obtained by the agencies named above in cooperation with other Federal, State and private organizations.

AS OF

JUNE 1, 1965

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from advance estimates of the streamflow.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, up to 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

Streamflow forecasts are obtained by a comparison of total or maximum snow accumulation, as measured by snow water equivalent, to the subsequent spring and summer or snowmelt season runoff over a period of years. The snow water equivalent measured in selected snow courses provides most of the index to the streamflow forecast for the following season. More accurate forecasts are usually obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast procedure. Early season forecasts assume average climatic conditions through the snowmelt season.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions. Soil Conservation Service Reports may be secured from Soil Conservation Service, 511 N.W. Broadway - Room 507, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS	ISSUED	LOCATION	COOPERATING WITH
RIVER BASINS			
Western United States	Monthly (Feb.-May)	Portland, Oregon	All Cooperators
Basic Data Summary	October 1	Portland, Oregon	All Cooperators
STATES			
Alaska	Monthly (Mar.-May)	Palmer, Alaska	Alaska S.C.D.
Arizona	Semi-Monthly (Jan. 15 - Apr. 1)	Phoenix, Arizona	Salt R. Valley Water Users Assdc. Ariz. Agr. Exp. Station
Colorado and New Mexico	Monthly (Feb.-May)	Fort Collins, Colorado	Colo. State University Colo. State Engineer N. Mex. State Engineer
Idaho	Monthly (Jan.-June)	Boise, Idaho	Idaho State Reclamation Engineer
Montana	Monthly (Jan.-June)	Bozeman, Montana	Mont. Agr. Exp. Station
Nevada	Monthly (Jan.-May)	Reno, Nevada	Nevada Dept. of Conservation and Natural Resources - Division of Water Resources
Oregon	Monthly (Jan.-June)	Portland, Oregon	Oreg. State University Oregon State Engineer
Utah	Monthly (Jan.-June)	Salt Lake City, Utah	Utah State Engineer
Washington	Monthly (Feb.-June)	Spokane, Washington	Wn. State Dept. of Conservation
Wyoming	Monthly (Feb.-June)	Casper, Wyoming	Wyoming State Engineer

PUBLISHED BY OTHER AGENCIES

REPORTS	ISSUED	AGENCY
British Columbia	Monthly (Feb.-June)	Water Resources Service, Dept. of Lands, Forest and Water Resources, Parliament Bldg., Victoria, B.C., Canada
California	Monthly (Feb.-May)	Calif. Dept. of Water Resources, P.O. Box 388, Sacramento, Calif.

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
OREGON

ISSUED

JUNE 8, 1965

Report prepared by

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and

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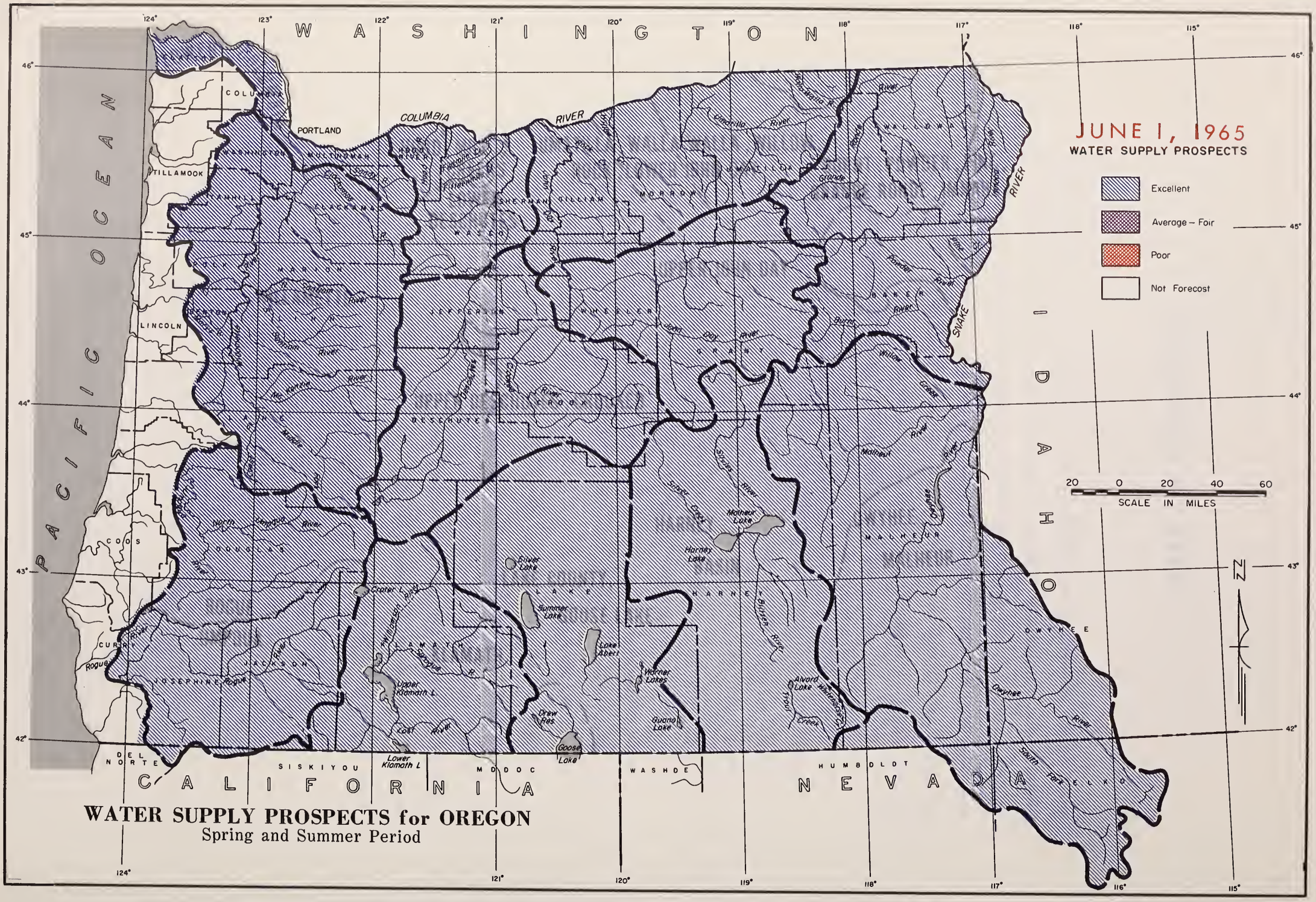


WATER SUPPLY PROSPECTS for OREGON

Spring and Summer Period

7-0-19102-1-L

WATER SUPPLY OUTLOOK for OREGON

June 1, 1965

Oregon water users, already well into their 1965 season, can expect average to excellent water supplies, June through September. Stored water supplies are at record high levels and most remaining streamflow is expected to be near average.

SNOW COVER

Most of the mountain snowpack on low and moderate elevation watersheds has melted off. However, cooler than normal temperatures have helped to preserve snowpacks at high elevations and in protected areas.

SOIL MOISTURE

Moisture in the soil mantle of the upper watersheds is excellent--close to saturation in most areas. Low-level soils, however, are already drying out rapidly due to lack of precipitation.

RESERVOIR STORAGE

Total water stored in 26 Oregon reservoirs is 18 percent better than the 15-year average (1948-62), and 25 percent more than last year on June 1. Stored water is more than adequate for 1965 needs, and is only 9 percent short of the total capacity of these reservoirs.

STREAMFLOW

Flow* of key Oregon streams during May varied from a low 58 percent average on the Umpqua to a high 126 percent average on the Owyhee. Forecasts of expected streamflow, May through September, vary from lows of 30 and 42 percent of average on Ochoco Creek and Crooked River up to highs of 125 percent average on Burnt River, 130 percent on the Owyhee, and 145 percent on the Malheur River.

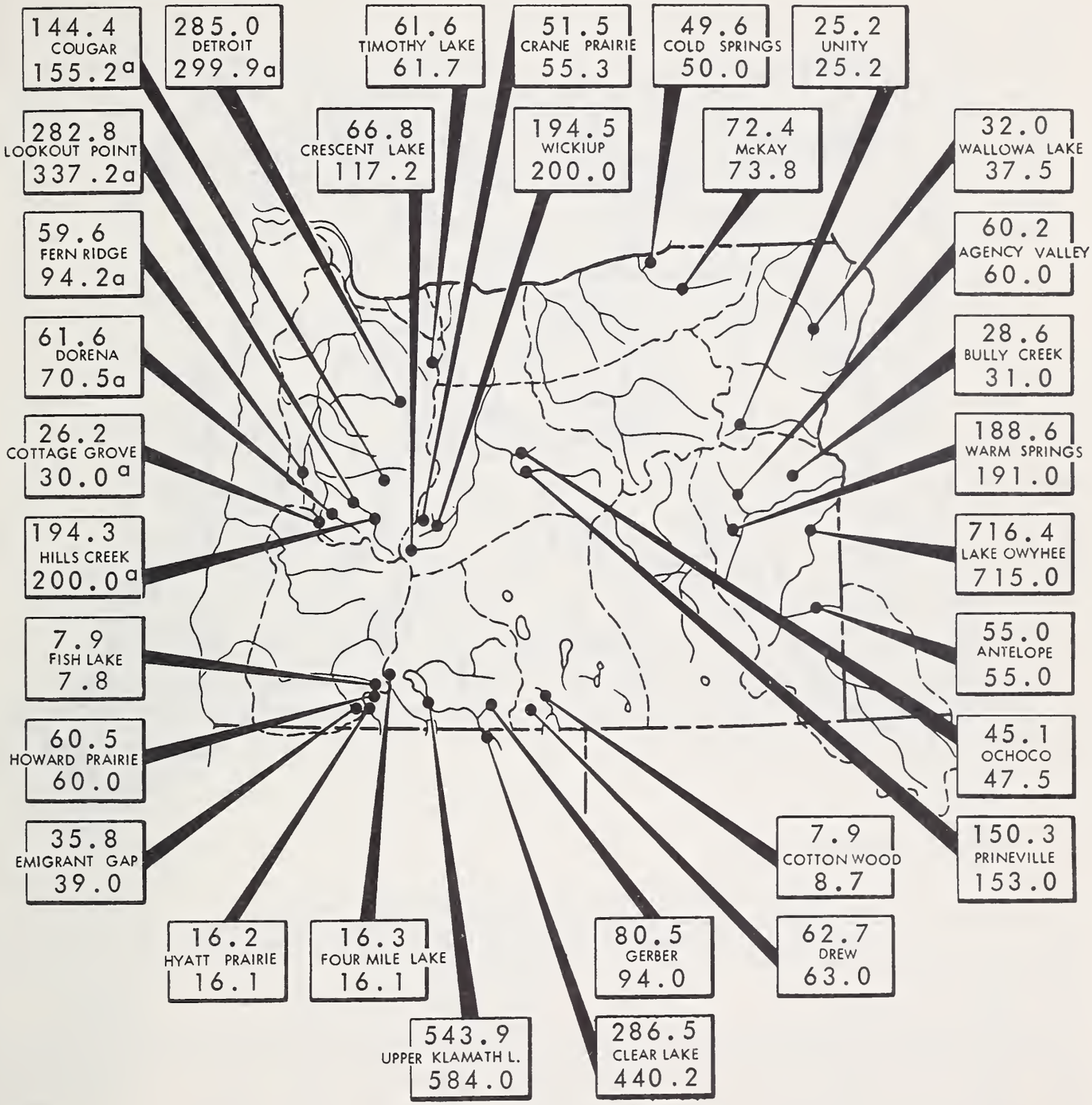
All irrigated lands served from reservoirs will have adequate water this season with some reservoirs expected to carry over water for next season's operations. Lands depending on diversion from natural streamflow will have enough water, except that flow of some smaller streams will taper off a little earlier than usual.

All forecasts are made assuming average conditions of temperature and rainfall during the balance of the season.

*Preliminary data from U.S. Geological Survey, Portland, and other cooperators.

STORAGE STATUS of OREGON RESERVOIRS
usable contents in thousands of acre feet

June 1, 1965



EXPLANATION

687.0
LAKE OWYHEE
715.0

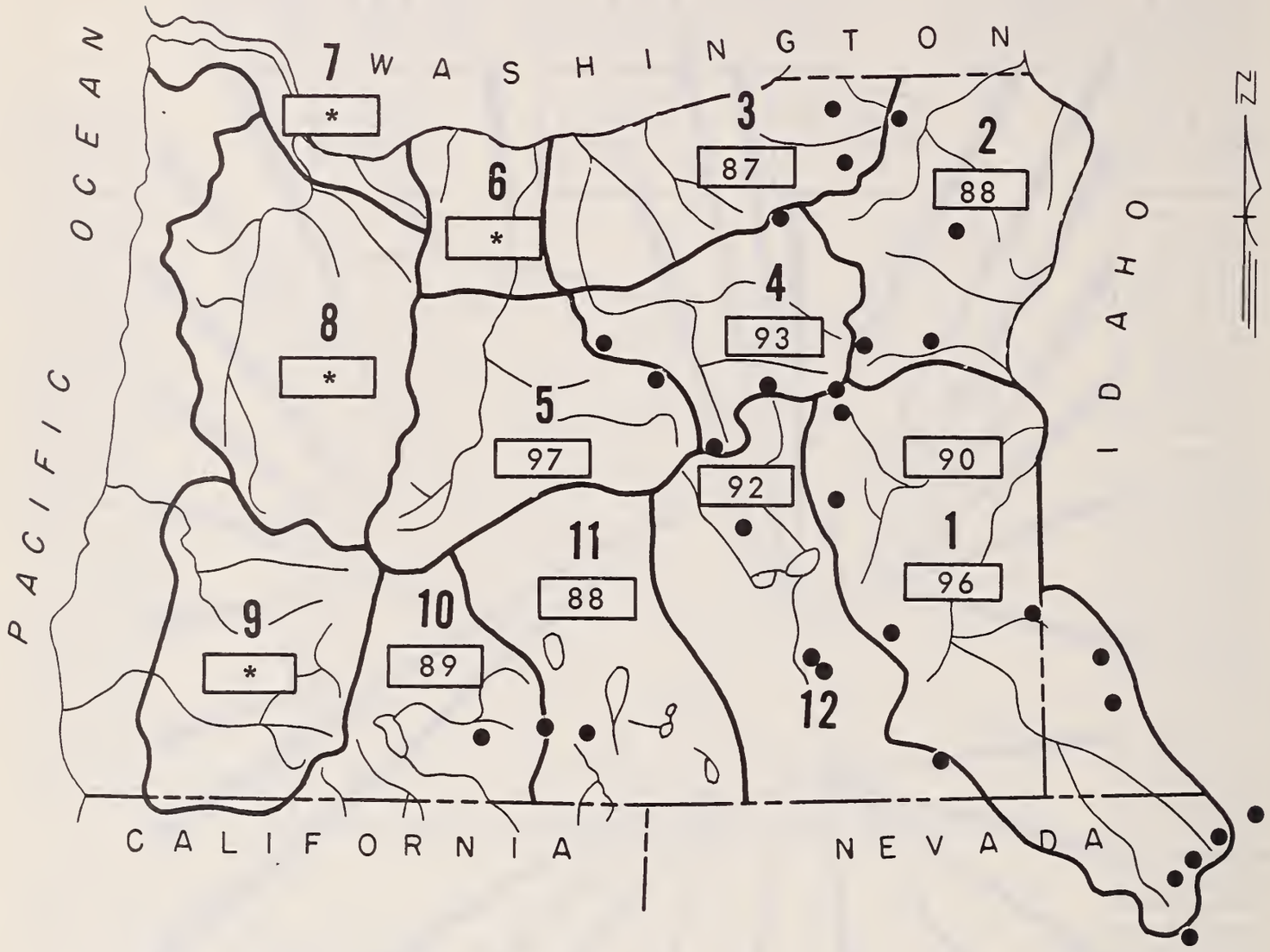
---Contents

---Capacity

(a) Multiple purpose reservoir - space reserved for flood runoff.
N. R. - No report.

MOUNTAIN SOIL MOISTURE in OREGON
as percent of capacity

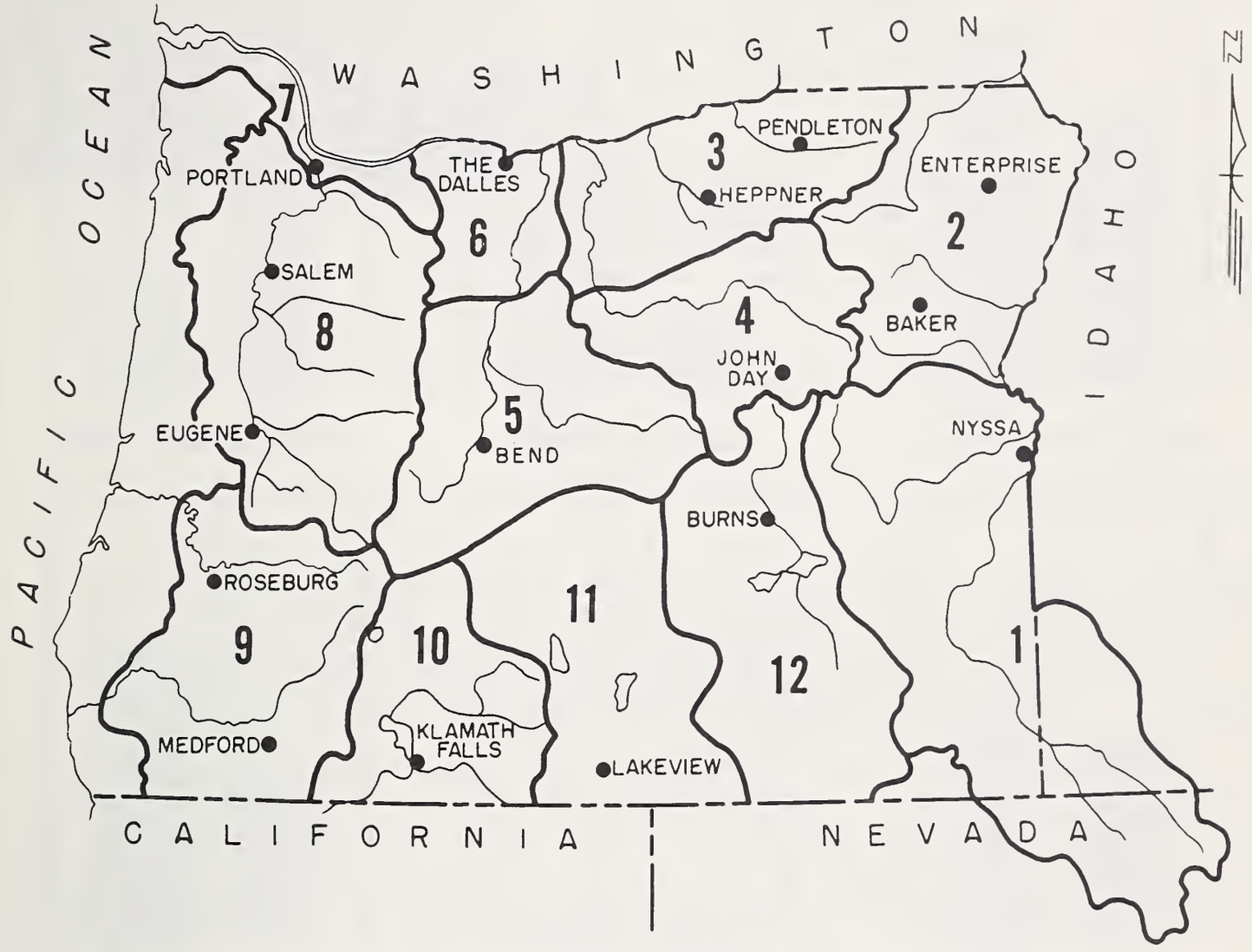
June 1, 1965



**Moisture studies not yet developed in these areas.*

VALLEY PRECIPITATION in OREGON [a]

June 1, 1965

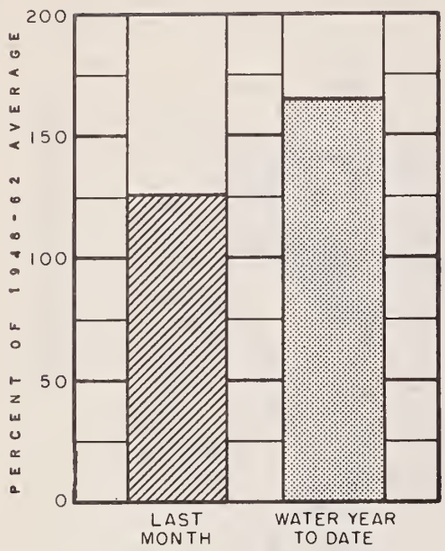


PRECIPITATION as PERCENT of the 1948-62 AVERAGE					
STATION	LAST MONTH	WATER YEAR [b] TO DATE	STATION	LAST MONTH	WATER YEAR [b] TO DATE
Baker Apt.	10	112	Lakeview	62	139
Bend	12	132	Meacham	68	126
Burns	76	137	Medford Apt.	21	148
Enterprise	70	112	Nyssa	36	103
Eugene Apt.	41	122	Pendleton Apt.	38	101
Heppner	39	105	Portland Apt.	60	93
John Day	36	111	Salem Apt.	53	92
Klamath Falls Apt.	34	129	The Dalles	42	137
			Owyhee (Nev.)	118	124

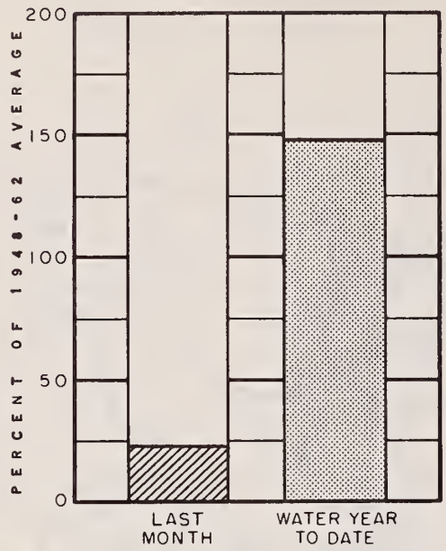
(a) Preliminary data furnished by the U.S. Weather Bureau. (b) Oct. 1 to date. (c) Report delayed.

CURRENT OREGON STREAMFLOW

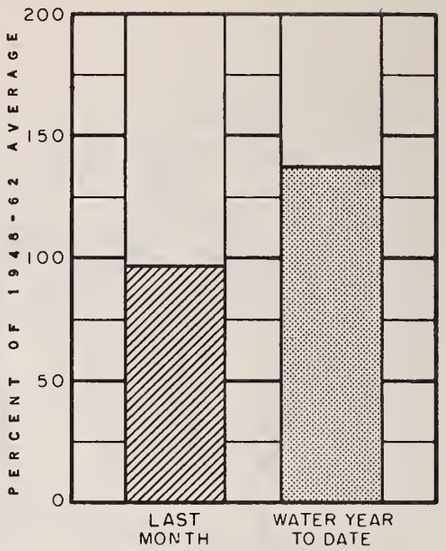
June 1, 1965



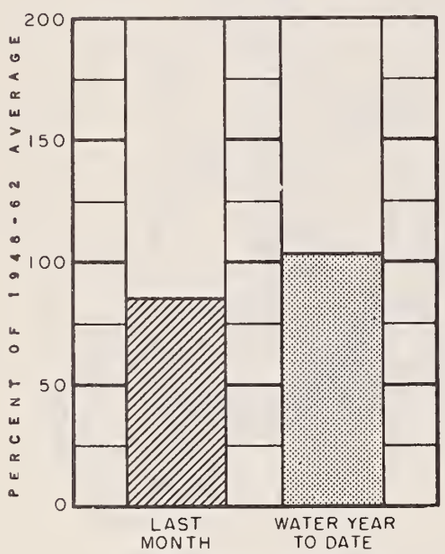
Owyhee Lake net inflow



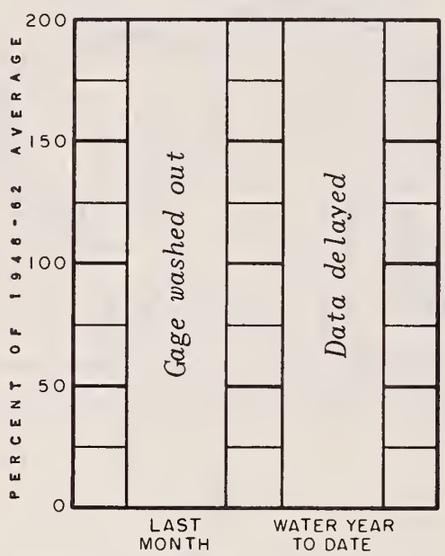
Umatilla near Umatilla



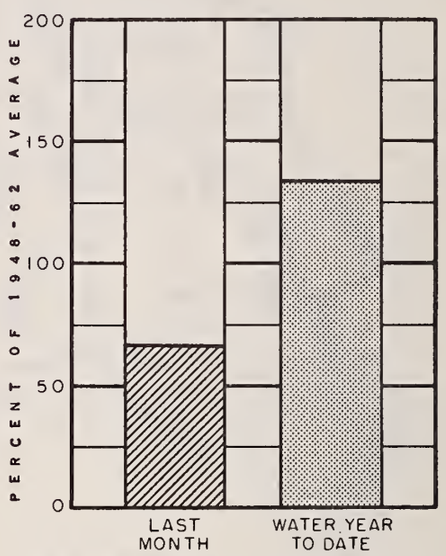
John Day at Service Creek



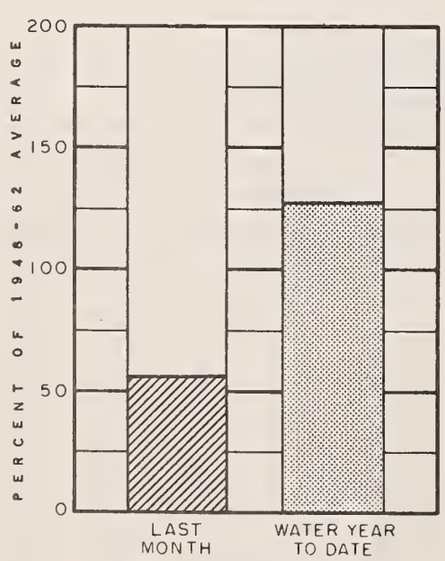
Deschutes at Moody



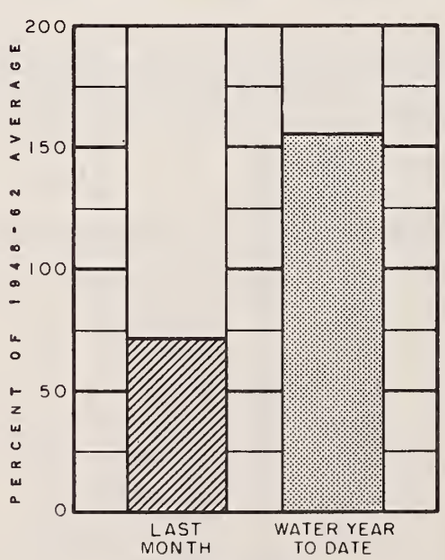
Hood and conduit near Hood River



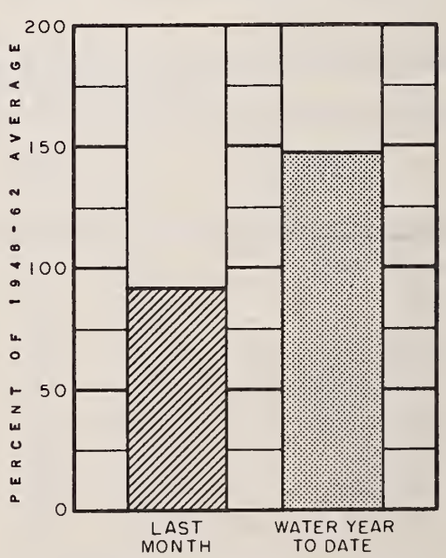
Mid. Fk. Willamette below No. Fk.



Umpqua near Elkton



Rogue at Raygold



Upper Klamath Lake net inflow

Data furnished by U.S. Geological Survey; The Pacific Power and Light Co.; and North and South Boards of Control Owyhee Project.

WATER SUPPLY OUTLOOK
OWYHEE, MALHEUR WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Malheur County water users are enjoying excellent water supplies this season--the finest since 1958. All irrigation districts are able to deliver adequate water supplies with stored water excellent and streamflows forecast to continue well above average.

SNOW COVER

Except for high elevations in the mountains, this year's above-average snow has completely disappeared.

SOIL MOISTURE

Moisture remaining in upper watershed soils is continuing to contribute to streamflow. These soils now contain close to 96 percent of their moisture capacity on the Owyhee and 90 percent on Malheur watersheds in upper elevations. Heavy rains on May 22nd and 23rd in the Jordan Valley-Triangle area produced heavy inflows for Antelope and Owyhee reservoirs.

RESERVOIR STORAGE

Stored water supplies remain at an all-time high and are 99 percent of capacity and 127 percent of last year at this date.

Antelope reservoir is full and ample water is available for the Jordan Valley Irrigation District this season with possibility of a good hold-over for next year.

Lake Owyhee is full at 716,400 acre feet which is ample for Owyhee Project with probability of a good hold-over for next season.

Malheur River water users served by the Warmsprings and Vale Oregon Irrigation Districts have ample water and should have carry-over also. Total water stored in Warmsprings, Agency Valley and Bully Creek reservoirs is 277,400 acre feet compared with 147,100 acre feet a year ago.

STREAMFLOW

Flow into Lake Owyhee* during May was 141,300 acre feet, or 126 percent of the 15 year average (1948-62).

Flow of streams in May was greater than expected. Therefore, streamflow forecasts have been increased and now range from 122 to 145 percent of average as follows: -

Stream	Period	Forecast	Percent Average
Jordan Creek above Lone Tree	April-July	120,000 a.f.	122
Owyhee Reservoir inflow	May-July	222,000 a.f.	132
Malheur near Drewsey	May-July	49,000 a.f.	144
North Fk. Malheur at Beulah	May-July	48,000 a.f.	145

* Preliminary data furnished by North Board of Control, Owyhee Project, Nyssa, Ore.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Boulder Creek	Average	Average
Bully Creek	Average	Average
Cow Creek	Average	Average
Jordan Creek	Average	Average
Jordan Valley Irrig. Dist.	Excellent	Excellent
McDermitt Creek	Average	Average
Oregon Canyon Creek	Average	Average
Owyhee Project	Excellent	Excellent
Succor Creek	Average	Average
Tenmile Creek	Average	Average
Vale-Oregon Irrig. Dist.	Excellent	Excellent
Warmsprings Irrig. Dist.	Excellent	Excellent
Willow Creek (Reservoired)	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Agency Valley	60.0	60.2	40.7	50.2
Antelope	55.0	55.0	55.0	35.0
Bully Creek	31.0	28.6	19.0	- -
Owyhee	715.0	716.4	626.2	545.3
Warmsprings	191.0	188.6	87.4	124.1

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

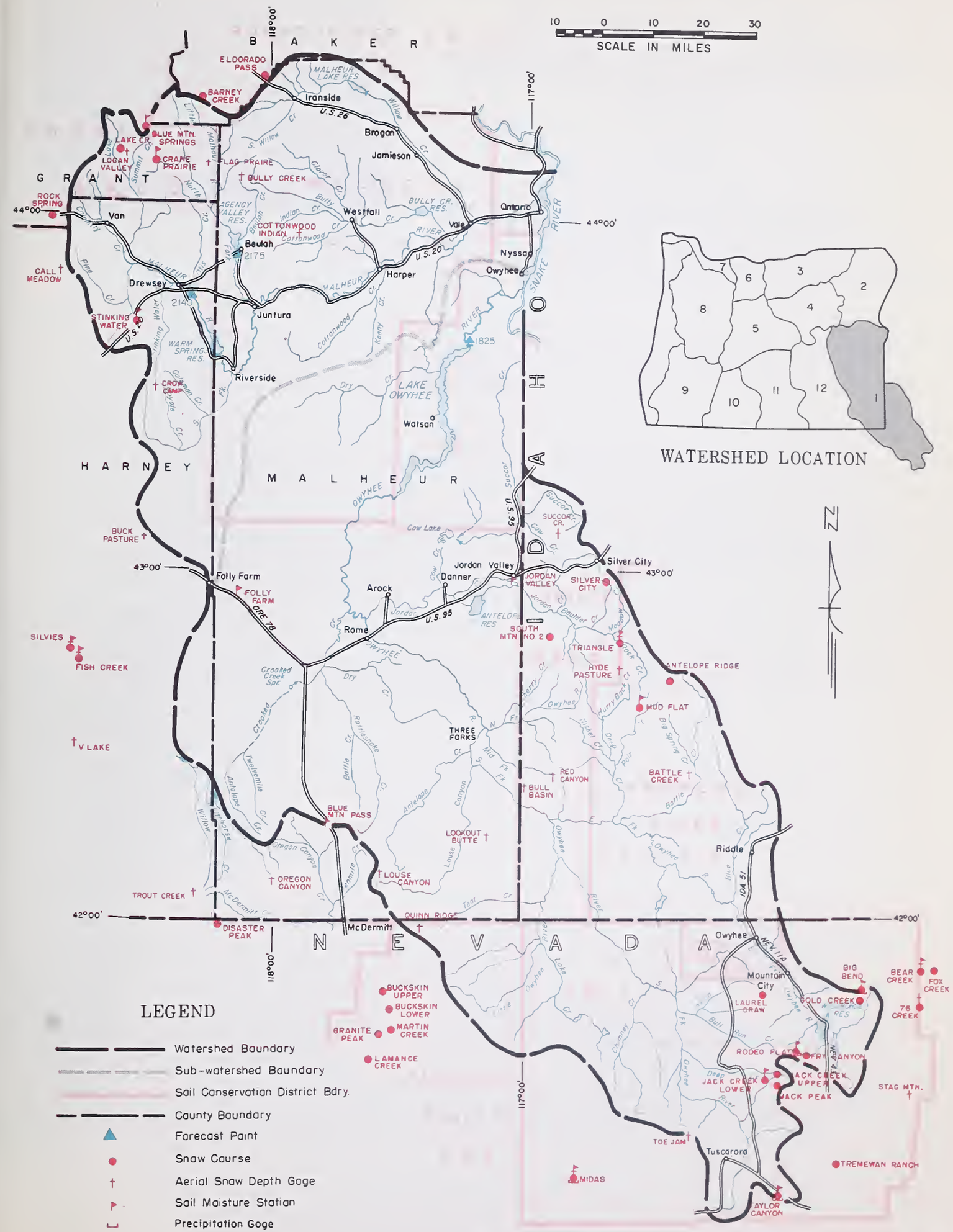
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
1780	Jordan Creek above Lone Tree Creek	120	April-July	98	122
2140	Malheur near Drewsey	49	May-July	34	144
		50	May-Sept.	35	143
2175	Malheur, North Fork at Beulah[d]	48	May-July	33	145
		55	May-Sept.	38	145
1825	Owyhee Reservoir net Inflow[k]	222	May-July	168	132
		240	May-Sept.	184	130

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Bear Creek (Nev.)	7800	72	16.8	c			
Big Bend (Nev.)	6700	48	16.7	4-28-65	16.7[f]	16.5[f]	16.2[f]
Blue Mountain Springs	5900	42	16.9	5-25-65	13.5	12.5	14.4
Crane Prairie	5375	48	18.2	5-25-65	18.0	17.4	17.6
Folly Farm	4450	30	12.5	4-7-65	12.1[f]	- -	- -
Jack Creek, Lower (Nev.)	6800	48	8.6	4-30-65	8.4[f]	8.4[f]	8.6[f]
Jordan Valley	4390	48	19.3	4-7-65	17.1[f]	- -	- -
Mud Flat (Ida.)	5500	48	12.8	4-30-65	12.1[f]	9.5[f]	11.6[f]
Rodeo Flat (Nev.)	6800	42	11.0	4-27-65	11.0[f]	10.8[f]	10.9[f]
Stinking Water Summit	4800	48	21.9	4-7-65	21.9[f]	21.1[f]	21.9[f]
Taylor Canyon	6200	58	15.1	4-30-65	15.0[f]	14.9[f]	14.3[f]
Triangle (Ida.)	5150	48	16.6	c			

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (l) Ground measurement. (m) Average for 5 or more years in base period.

OWYHEE, MALHEUR WATERSHEDS



"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in Baker, Union, and Wallowa Counties are experiencing a very good irrigation season. Streamflow is holding up well and reservoirs are full or soon will be as snow melts from higher elevations.

SNOW COVER

Snow has melted from low and medium elevations but remains in substantial quantities at the higher areas of both the Wallowa and Elkhorn Mountains.

Measurements taken on May 20 at Aneroid Lake indicated 80 inches of snow depth containing 46.0 inches of water content. No measurements have been taken near June 1 for comparison since June of 1956 when the depth was 57 inches with 34.5 inches water content.

SOIL MOISTURE

Watershed soils are still 88 percent of total moisture capacity at medium elevations and wetter near the snow line. Valley soils have started to dry out in the top foot due to the lack of rainfall in May.

RESERVOIR STORAGE

Unity Reservoir is still full at 25,200 acre feet compared with 22,800 acre feet last year on June 1 and a 1948-62 average of 22,600 acre feet.

Wallowa Lake now holds 32,000 acre feet compared with 29,600 a year ago. The June 1 average is 27,200 acre feet.

STREAMFLOW

Flow of Burnt, Powder, Catherine and Grande Ronde Rivers has held up well and has just recently started to taper off. Flow of Wallowa Mountain streams has just begun to reflect the spring snow melt and should continue upward as the warmer weather hits the high snowpack.

Streamflow forecasts vary from 99 percent for the May-September period on the Grande Ronde to 126 percent on the Imnaha and Lostine, for the April-September period.

Other forecasts are as follows: Burnt River, 124 percent; Catherine, 103; East Fork Wallowa, 121 percent for the May-September period; Bear Creek, 118 and Hurricane Creek 115, for the April-September period.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Alder Slope	Excellent	Average
Baker Valley	Excellent	Average
Big Creek	Excellent	Average
Clover Cr. (nr. No. Powder)	Excellent	Average
Cove	Excellent	Average
Durkee	Excellent	Average
Eagle Valley	Excellent	Average
Elgin	Excellent	Average
Enterprise-Joseph	Excellent	Excellent
Hereford-Bridgeport	Excellent	Excellent
Imnaha River	Excellent	Excellent
LaGrande-Island City	Excellent	Average
Lostine-Wallowa	Excellent	Average
No. Powder River-Wolf Cr.	Excellent	Average
Pine Valley	Excellent	Average
Powder River-Elk Creek	Excellent	Average
Summerville	Excellent	Average
Sumpter Valley	Excellent	Average
Union-Hot Lake	Excellent	Average
Unity	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Unity	25.2	25.2	22.8	22.6
Wallowa Lake	37.5	32.0	29.6	27.2

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3305	Bear near Wallowa	85	April-Sept.	72	118
2730	Burnt near Hereford[d]	20	May-June	16.0	125
		22	May-Sept.	17.8	124
3200	Catherine near Union	61	May-Sept.	58	103
3190	Grande Ronde at LaGrande	118	May-July	118	100
		120	May-Sept.	121	99
3295	Hurricane Creek near Joseph	55	April-Sept.	48	115
2920	Imnaha at Imnaha	400	April-Sept.	318	126
3300	Lostine near Lostine	165	April-Sept.	131	126
2755	Powder River near Baker	74	April-July	66	112
		75	April-Sept.	67	112
3250	Wallowa, East Fork near Joseph[d]	10.7	May-July	8.8	122
		13.5	May-Sept.	11.2	121

SOIL MOISTURE

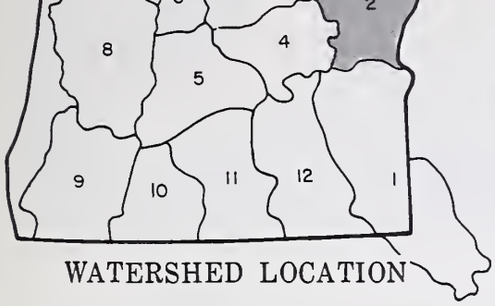
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Blue Mountain Summit	5100	36	16.8	5-27-65	15.5	15.6	15.7[f]
Emigrant Springs	3925	48	22.3	5-31-65	20.8	21.4	20.9[f]
Tollgate	5070	48	23.6	5-28-65	19.1	20.2	21.2[f]

SNOW

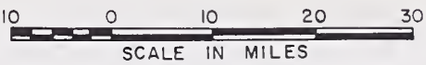
SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) 1948-62 AVERAGE
Aneroid Lake #1	7480	5/20	80	46.0	- -	- -
Aneroid Lake #2	7300	5/20	69	36.4	- -	- -
Tollgate	5070	5/28	0	0.0	2.2	- -

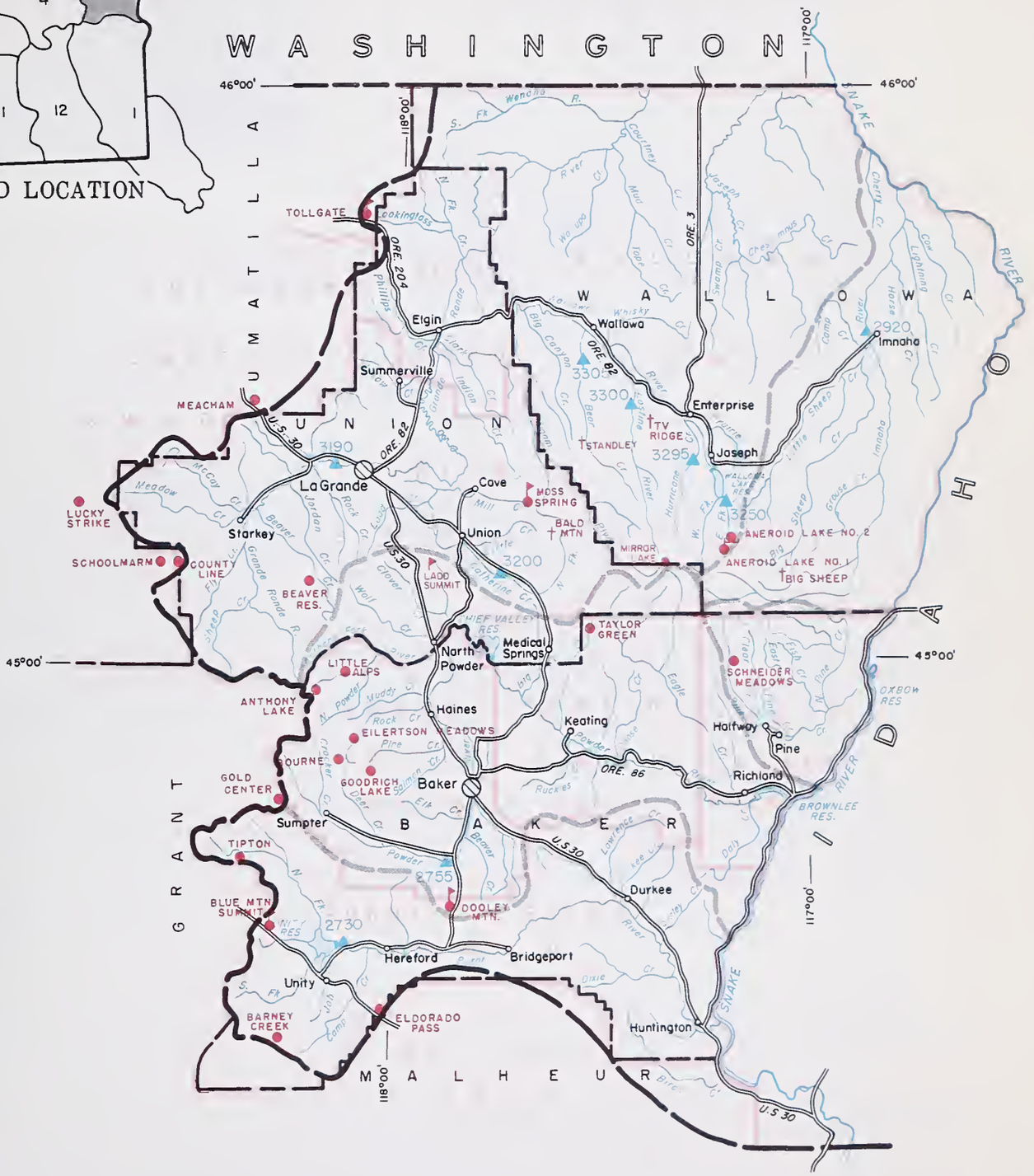
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS



WATERSHED LOCATION





LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Soil Moisture Station
- Aerial Snow Depth Gage
- Precipitation Gage

"The Conservation of Water begins with the Snow Survey"

Area 3

WATER SUPPLY OUTLOOK
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

The 1965 irrigation season is well underway in Umatilla, Gilliam, and Morrow Counties, and the water supply outlook is excellent from reservoir stored water, and near average for natural streamflow.

SNOW COVER

Snow remains at only the highest and most protected locations on the wateshed. All snow was gone from Tollgate Snow Course on May 28, while last year at this time there was an average 4 inches of snow depth containing 2.2 inches of water content.

SOIL MOISTURE

Watershed soil moisture is still very good at high elevations, but valley soils have dried out in the top foot due to below normal rainfall in May.

RESERVOIR STORAGE

McKay Reservoir now holds 72,400 acre feet compared with 39,400 acre feet last year on June 1. This is a very good water supply for McKay water users.

Cold Springs Reservoir now holds 49,600 acre feet. It held this same amount last year on June 1.

STREAMFLOW

Flow of McKay Creek is reported to be falling off rapidly and other low elevation streams are expected to recede rapidly unless June precipitation is above average.

Streamflow forecasts now range from 57 percent for the May-September flow of McKay Creek, to 91 percent on South Fork Walla Walla for the same period.

The Umatilla at Pendleton is expected to flow about 82 percent of average for the April-September period or 150,000 acre feet.

The Umatilla at Gibbon is expected to flow 79,000 acre feet or 85 percent of this same average period.

Butter Creek is reported holding up well and is forecast to flow 8,800 acre feet during the April-September period.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Birch Creek	Excellent	Average
Butter Creek	Excellent	Average
Dry Creek	Average	Average
Dugger Creek	Average	Average
Johnson Creek	Average	Average
McKay Creek	Excellent	Average
Mill Creek	Average	Average
Mud Creek	Average	Average
Pine Creek	Average	Average
Rhea Creek	Excellent	Average
Rock Creek	Excellent	Average
Umatilla R. (Cold Springs Reservoir)	Excellent	Average
Umatilla River, Main	Average	Average
Umatilla River (McKay Res.)	Excellent	Average
Walla Walla River, Little	Average	Average
Walla Walla River, Main	Average	Average
Walla Walla River, No. Fk.	Average	Average
Walla Walla River, So. Fk.	Average	Average
Willow Creek	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cold Springs	50.0	49.6	49.6	48.0
McKay	73.8	72.4	39.4	67.1

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
0320	Butter Creek near Pine City	8.8	April-Sept.	9.8	90
0225	McKay near Pilot Rock	8.0	May-Sept.	14.1	57
0200	Umatilla River near Gibbon	79	April-Sept.	93	85
0210	Umatilla River at Pendleton	148	April-July	178	83
		150	April-Sept.	183	82
0100	Walla Walla, So. Fork near Milton	40	May-July	44	91
		52	May-Sept.	58	90

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Athena-Weston	1700	48	18.7	5-28-65	14.3	14.0	16.0[f]
Battle Mountain Summit	4340	48	13.8	5-31-65	13.7	13.1	13.7[f]
Emigrant Springs	3925	48	22.3	5-31-65	20.8	21.4	20.9[f]
Tollgate	5070	48	23.6	5-28-65	19.1	20.2	21.2[f]

SNOW

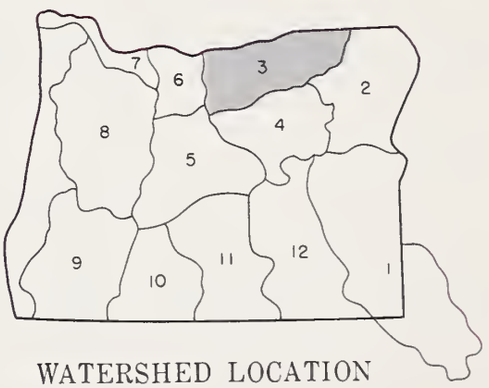
SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) 1948-62 AVERAGE
Blue Mountain Camp	4300	5/28	0	0.0	0.0	- -
Tollgate	5070	5/28	0	0.0	2.2	- -
Weston Mountain	2700	5/28	0	0.0	0.0	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

LEGEND

- Watershed Boundary
- Sub-watershed Boundory
- Soil Conservation District Bdry.
- County Boundory
- Forecost Point
- Snow Course
- Soil Moisture Stotion



WATERSHED LOCATION

"The Conservation of Water begins with the Snow Survey"

Area 4

WATER SUPPLY OUTLOOK
UPPER JOHN DAY WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in Grant and Wheeler Counties are experiencing above average spring and summer water supplies in the 1965 season. Streamflow has been excellent over most of the area, even with subnormal precipitation.

SNOW COVER

Mountain snowpacks, much above average one month ago, have disappeared completely at low and moderate elevations. The only snow now present is located at high elevations in protected areas.

SOIL MOISTURE

Watershed soils are still very wet at moderate and high elevations but are drying rapidly at lower elevations.

STREAMFLOW

Flow of the John Day River at Service Creek*in May was 357,700 acre feet or 96 percent of the average. Total flow from October 1, 1964 to May 31, 1965 has been 161 percent average.

Forecasts of streamflow for the April through September period and compared with the 15 year average, 1948-62, are as follows:

Strawberry Creek	10,000 acre feet	114 percent average
John Day River at Prairie City	60,000 acre feet	118 percent average
John Day, Mid. Fk. at Ritter	151,000 acre feet	115 percent average

Smaller streams at lower elevations should produce about average flows unless abnormally dry, hot temperatures prevail.

* Preliminary data furnished by U.S. Geological Survey, Portland, Oregon.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Beech Creek	Excellent	Average
Beech Creek-Fox-Long Cr.	Excellent	Average
Bridge-Mountain Creeks	Excellent	Average
Camas Creek	Excellent	Average
Indian-Pine Creeks	Excellent	Average
John Day River, Main Fork	Excellent	Average
John Day River, Mid. Fork	Excellent	Average
John Day River, N. Fork	Excellent	Average
John Day River, S. Fork	Excellent	Average
Monument-Kimberly	Excellent	Average
Strawberry Creek	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

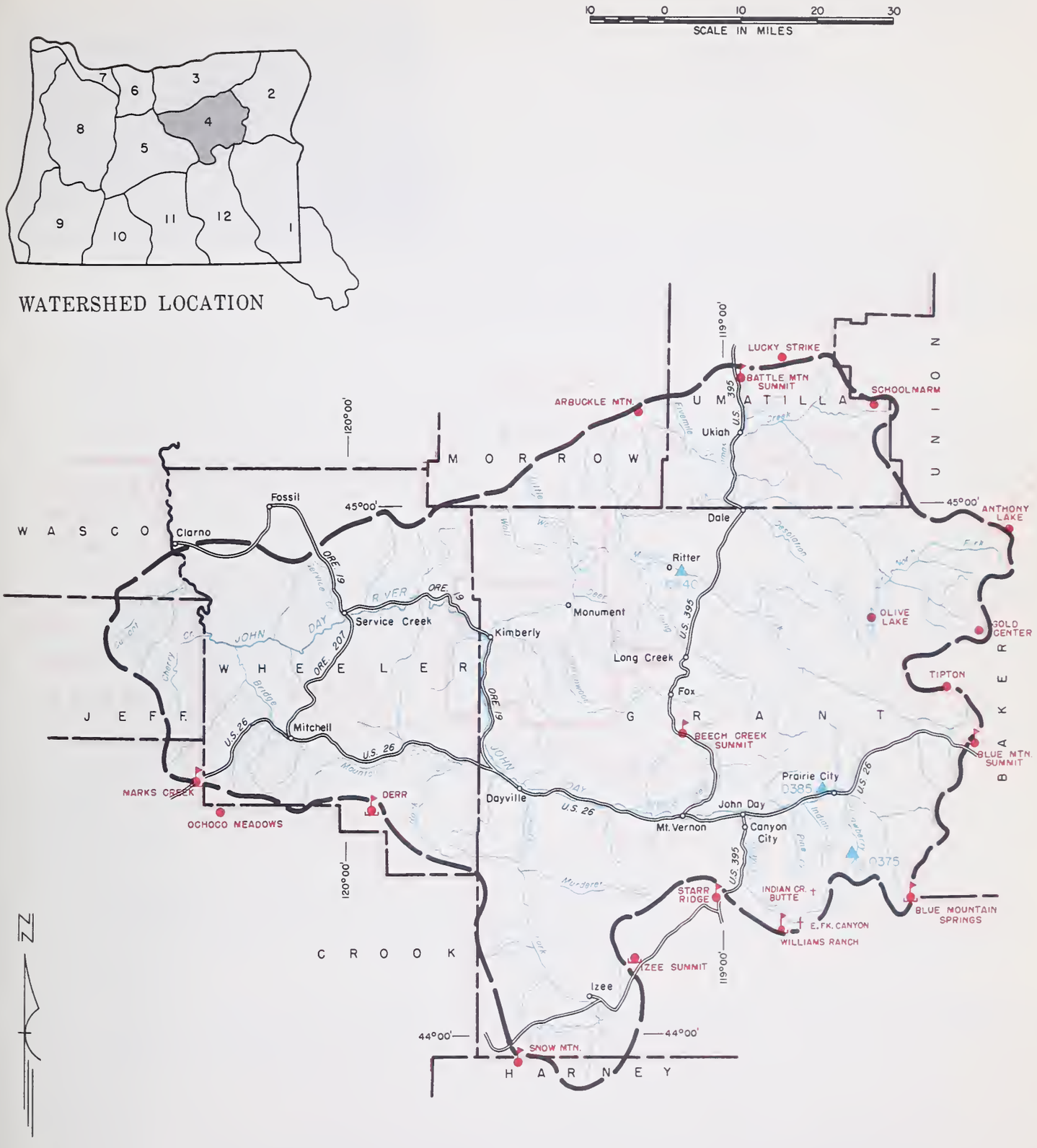
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
0385	John Day at Prairie City	55	April-July	46	119
		60	April-Sept.	51	118
0440	John Day, Middle Fork at Ritter	147	April-July	127	116
		151	April-Sept.	131	115
0375	Strawberry near Prairie City	9.3	April-July	8.1	115
		10.0	April-Sept.	8.8	114

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Battle Mountain Summit	4340	48	13.8	5-31-65	13.7	13.1	13.7[f]
Blue Mountain Springs	5900	42	16.9	5-25-65	13.5	12.5	14.4[f]
Blue Mountain Summit	5100	36	16.8	5-27-75	15.5	15.6	15.7[f]
Derr	5670	24	9.0	c			
Marks Creek	4540	36	14.1	6-3-65	13.4	13.4[f]	13.5[f]
Snow Mountain	6300	48	16.7	6-4-65	16.6	14.3	- -
Starr Ridge	5150	36	10.6	5-25-65	10.4	10.4	10.4

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER JOHN DAY WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
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- Aerial Snow Depth Gage
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"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
UPPER DESCHUTES, CROOKED WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in Deschutes, Crook and Jefferson Counties are experiencing average to excellent water supplies in the 1965 season--the finest since 1958. Reservoired water supplies are well above average and forecasts of streamflow are close to average except on Crooked River watershed where estimates have dropped to 30 or 40 percent of average.

SNOW COVER

Except for scattered drifts at high elevations, all snow has disappeared from Crooked River watersheds. At Cascade Summit Snow Course on the Deschutes watershed there was 9 inches of snow containing 4.7 inches of water at the end of May. Last year there was 14.6 inches of water on this course.

SOIL MOISTURE

Watershed soils in the higher elevations are still heavily wetted, but surface soils at lower elevations are drying out rapidly.

RESERVOIR STORAGE

Total stored water supplies are excellent.

Prineville Reservoir now contains 150,300 acre feet compared with 135,500 acre feet a year ago. Ochoco Reservoir holds 45,100 acre feet compared with 31,000 a.f. in 1964. Ochoco Irrigation District has adequate water supplies.

Crescent Lake holds 66,800 acre feet now compared with 55,000 last year. Crane Prairie has 51,500 a.f. compared with 30,900, and Wickiup has 194,500 acre feet compared with 146,800 a.f. a year ago.

STREAMFLOW

Flow of the Deschutes at Moody* was 84 percent of the 1948-62 average during May.

Streamflow forecasts have been reduced slightly as follows:

Crooked River and Ochoco Reservoir inflow are expected to produce about 42 and 30 percent respectively, May through September.

continued on next page

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Little Deschutes near Lapine and Deschutes at Benham Falls are forecast at 90 and 95 percent, respectively, for the April-September period. Tumalo and Squaw Creeks are forecast to flow 104 and 107 percent average during the April-September period.

*Preliminary data furnished by Current Records Center, U.S. Geological Survey, Portland, Oregon.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Arnold Irrigation District	Excellent	Average
Bear Creek	Average	Average
Beaver Creek	Average	Average
Camp Creek	Average	Average
Central Oregon Irrig. Dist.	Excellent	Average
Crooked River	Excellent	Average
Deschutes River	Average	Average
Hay-Trout Creeks	Average	Average
Lone Pine Irrig. Dist.	Excellent	Average
Mill Creek	Average	Average
North Unit Irrig. Dist.	Excellent	Average
Ochoco Creek	Average	Average
Sisters Irrigation Dist.	Excellent	Average
Snow Creek Irrig. Dist.	Excellent	Average
Squaw Creek Irrig. Dist.	Excellent	Average
Swalley Ditch	Excellent	Excellent
Tumalo Project	Excellent	Average
Walker Basin Irrig. Dist.	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Crane Prairie	55.3	51.5	30.9	44.4
Crescent Lake	117.2	66.8	55.0	53.5
Ochoco	47.5	45.1	31.0	39.2
Prineville	153.0	150.3	135.5	--
Wickiup	200.0	194.5	146.8	169.9

Note: Current storage figure for Crescent Lake includes 5360 acre feet of known dead and inactive storage.

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
0535	Crane Prairie Reservoir total Inflow	83	May-July	79	105
		135	May-Sept.	127	106
0600	Crescent at Crescent Lake[d]	20	May-July	22	91
		26	May-Sept.	29	90
0795	Crooked near Post	18.5	May-July	46	40
		20	May-Sept.	48	42
0645	Deschutes at Benham Falls[d]	400	April-July	417	96
		600	April-Sept.	631	95
0500	Deschutes below Snow Creek	77	April-Sept.	75	103
0630	Deschutes, Little near Lapine[d]	89	April-July	99	90
		102	April-Sept.	113	90
0848	Ochoco Reservoir net Inflow	5.0	May-Sept.	16.5	30
0555	Odell near Crescent	31	April-Sept.	34	91
0750	Squaw near Sisters	60	April-Sept.	56	107
0730	Tumalo near Bend[d]	56	April-Sept.	54	104

SOIL MOISTURE

STATION NAME	STATION ELEVATION	PROFILE (Inches) DEPTH	PROFILE (Inches) CAPACITY	SOIL MOISTURE (Inches) DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Derr	5670	24	9.0	[c]			
Marks Creek	4540	36	14.1	6-3-65	13.4	13.4[f]	13.5[f]
Snow Mountain	6300	48	16.7	6-4-65	16.6	14.3	--

SNOW

SNOW COURSE NAME	SNOW COURSE ELEVATION	CURRENT INFORMATION DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	PAST RECORD WATER CONTENT (Inches) LAST YEAR	1948-62 AVERAGE
Cascade Summit	4880	5/28	9	4.7	14.6	--
Cascade Summit (Alternate)	4880	5/28	8	3.8	--	--

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER DESCHUTES, CROOKED WATERSHEDS

WATERSHED LOCATION

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in Hood River and Wasco Counties are experiencing about average water supplies this season.

SNOW COVER

Low elevation snowpacks have long since disappeared but considerable snow remains at high elevations where protected by forest shade. On June 1st 43 inches of snow at the Phlox Point snow course held 24.5 inches of water compared with 83.3 inches of water one year ago.

SOIL MOISTURE

Moisture in upper watershed soils is excellent but is slowly disappearing in the top foot at low elevations due to short precipitation.

RESERVOIR STORAGE

Clear Lake reservoir now contains 8,500 acre feet of water compared with 3,700 acre feet last year on June first. This is a good supply for the Juniper Flat Irrigation District. Reports have not been received on the storage status in smaller reservoirs such as Rock Creek and Badger Lake.

STREAMFLOW

Flow of Hood River near Hood River is forecast at 240,000 acre feet for the May-September period or 87 percent average. The station on the West Fork near Dee is expected to measure 110,000 acre feet or 88 percent average in the same period.

White River below Tygh Valley is forecast to flow 115,000 acre feet or 91 percent average in the May-September period.

Flow of smaller streams, such as Mill and Mile Creeks, Badger, Rock, and Gate Creeks, will likely be less than usual with a shorter than average late-season flow.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Aldridge Ditch	Average	Average
Badger Creek	Average	Average
Dee Irrigation District	Average	Average
East Fork Irrigation Dist.	Average	Average
Farmers Irrigation District	Average	Average
Hood River Irrigation Dist.	Average	Average
Juniper Flat	Average	Average
Middle Fork Irrig. Dist.	Average	Average
Mile Creeks	Average	Average
Mill Creek	Average	Average
Mount Hood Irrigation Dist.	Average	Average
Rock-Gate-Threemile Crs.	Average	Average
Tygh Creek	Average	Average
White River	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Clear Lake	11.8	8.5	3.7	- -

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
1210	Hood near Hood River[d]	190	May-July	218	87
		240	May-Sept.	278	86
1185	Hood, West Fork near Dee	88	May-July	101	87
		110	May-Sept.	125	88
1015	White below Tygh Valley	97	May-July	108	90
		115	May-Sept.	126	91

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) 1948-62 AVERAGE
Clear Lake	3500	5/28	0	0.0	0.4	- -
Clear Lake (Experimental)	3500	5/28	0	0.0	2.4	- -
Phlox Point	5600	6/1	43	24.5	83.3	45.3[m]
Still Creek	3700	5/28	0	0.0	18.4	0.9[m]

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecost Point
- Snow Course
- Aerial Snow Depth Goge
- Soil Moisture Stotion

WATERSHED LOCATION

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
LOWER COLUMBIA WATERSHEDS
OREGON

as of
MAY 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

As indicated by mountain snow surveys since February 1, water supply outlook for irrigation and power in the Columbia Basin is good. Heavy runoff is occurring on the Upper Snake and its tributaries but is being controlled where storage is available. Exceptions are the Lost and Wood rivers. No further excess water problems are anticipated for the major streams, including the lower Columbia. Reservoirs on the main stem and tributaries retain more than usual capacity for controlling streamflow.

SNOW COVER

Snow remaining as of June 1 is limited to the highest elevations which is typical for this date. The heavy snowpack that accumulated on the Boise and Upper Snake watersheds requires additional time for snowmelt to be completed. It remains relatively high on these watersheds.

STREAMFLOW

Upper Columbia flow tended to be below normal for May. Above average flows flows occurred in the Clark Fork in Montana and in the Snake thraugh Idaha. The net result was an adjusted flow of 95 percent of average at The Dalles for May.

Snowmelt runoff has been orderly and near constant far the past month. Further increases in rate of snowmelt from the Upper Columbia area are expected to be balanced by slight recessions for lower basin streams. The Coaperative Columbia River Forecasting Unit of the U. S. Weather Bureau and U.S. Army Corps of Engineers anticipate only limited increases in present flows of the lower Columbia with moderate temperature sequences. Flows are expected ta be slightly above average for June and July.

The record for the flow of the Columbia at The Dalles* in percent af average for the winter and spring months is as follows:

Month	Percent of Average Discharge (1948-62)
October	113 (Adjusted far storage)
November	97 " " "
December	163 " " "
January	143 " " "
February	152 " " "
March	117 " " "
April	120 " " "
May	95 " " "

*Preliminary data furnished by U. S. Geological Survey, Partland, Oregan.

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STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
1057	Columbia at The Dalles[d]	64,000 101,000	May-June May-Sept.	60,426 94,841	106 107

HISTORICAL DATA (Columbia River at The Dalles)

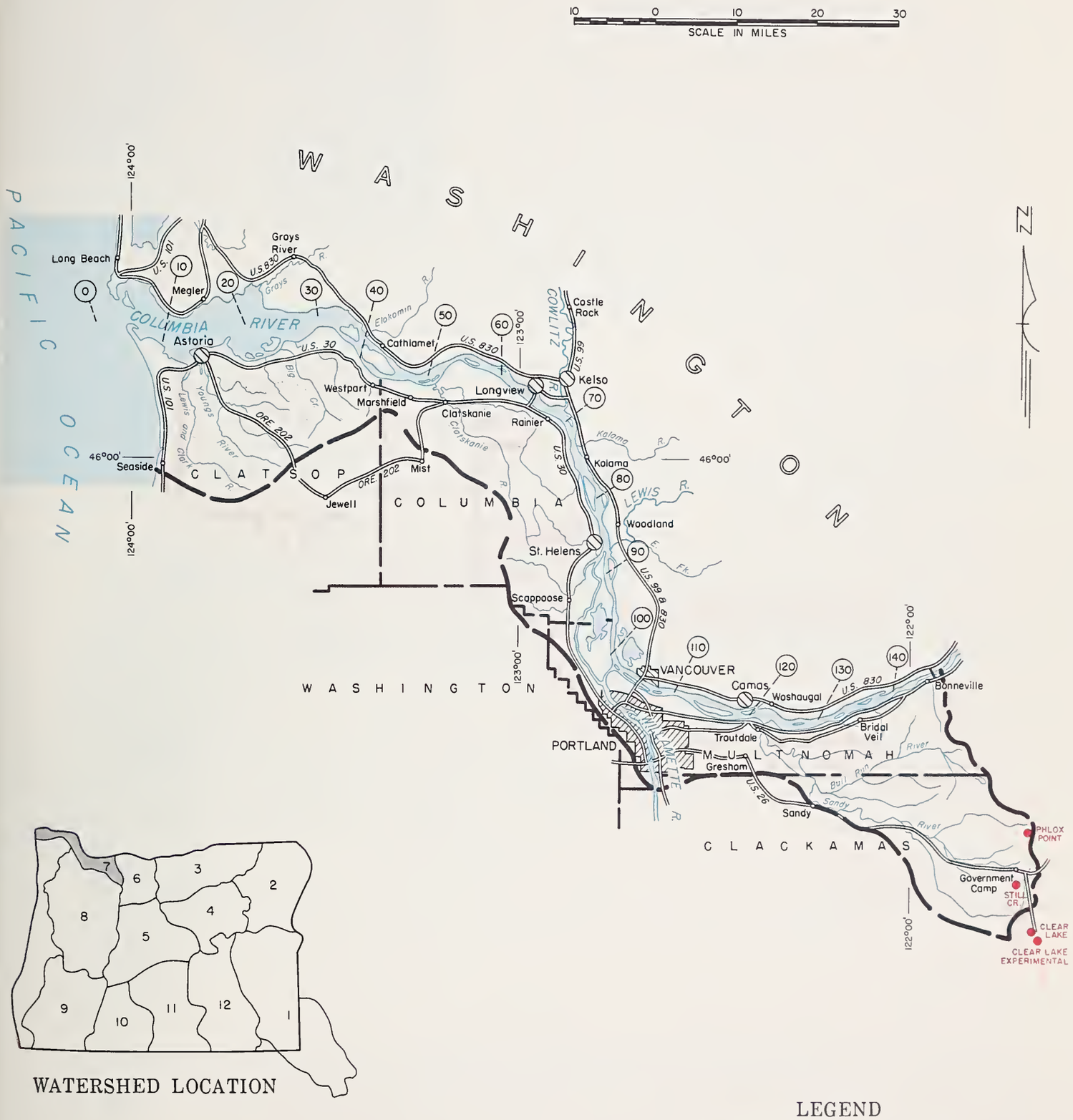
YEAR	STREAMFLOW[d] (1,000 A.F.) APR.— SEPT.	APR.— JUNE	MAY—JUNE	PEAK (1,000 c.f.s.)	DATE
1943	115,000	75,300	52,400	541	June 21
1944	61,900	39,200	32,100	326	June 19
1945	81,600	54,600	47,300	505	June 8
1946	108,100	75,400	59,600	581	May 30
1947	100,300	70,000	56,800	536	May 11
1948	130,500	94,600	81,900	999	May 31
1949	95,700	71,400	56,000	622	May 18
1950	120,400	74,700	61,200	744	June 25
1951	113,000	75,600	59,100	597	May 26
1952	107,700	77,500	57,300	557	May 28
1953	100,600	64,900	55,800	609	June 17
1954	119,500	70,500	59,300	561	May 23
1955	99,500	58,300	50,300	545	June 26
1956	131,400	96,900	75,800	815	June 3
1957	105,700	80,500	67,200	700	May 22
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1948-62 Avg.	108,500	74,100	60,200	633	
1963	87,000	56,300	46,200	437	June 18

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu.)	FLOW AT THE DALLES (1,000 c.f.s.)	DRAINAGE DISTRICT PUMPHOUSE SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES 118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

LOWER COLUMBIA WATERSHEDS



WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- (50) River Miles
- Snow Course

Lower Columbia Watersheds

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
WILLAMETTE WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in the Willamette Basin are enjoying near average water supplies and can expect them to continue satisfactory for the balance of the 1965 season.

SNOW COVER

Mountain snowpacks have disappeared from most low and moderate elevation areas but remain at high elevations and in protected areas.

Phlox Point snow course on Mt. Hood at 5600 feet elevation had 43 inches of snow containing 24.5 inches of water on June 1st. Last year this course had 152 inches of snow with 83.3 inches of water on this date.

SOIL MOISTURE

Watershed soils at moderate and high elevations are very wet, while soils at low elevations have been drying rapidly due to lack of rain.

RESERVOIR STORAGE

Timothy Lake reservoir on the upper Clackamas River is full. Multiple-purpose Willamette reservoirs, operated by the Corps of U. S. Army Engineers, have been filling according to the flood control plan and are about at scheduled levels. Fern Ridge Reservoir did not receive expected inflows due to low spring precipitation.

STREAMFLOW

Flow of the Middle Fork of the Willamette near Oakridge* during May was 176,100 acre feet or 66 percent of the 15 year average, 1948-62. One year ago in May this stream flowed 240,000 acre feet.

Forecasts of flow of Willamette streams have been reduced due to low precipitation in May and now range from 81 percent average on the Clackamas to 88 percent on the South Santiam for the period April through September.

continued on following page

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Detail forecasts for the six-month, April-September, period compared with the 15 year average, 1948-62, are as follows:-

Clackamas at Estacada	720,000	acre ft.	81 percent average
Willamette at Salem	4,620,000	acre ft.	83 percent average
North Santiam at Mehama	832,000	acre ft.	84 percent average
South Santiam at Waterloo	594,000	acre ft.	88 percent average
McKenzie near Vida	1,185,000	acre ft.	85 percent average
Mid. Fk. Willamette nr. Oakridge	825,000	acre ft.	85 percent average
Row River near Dorena	91,000	acre ft.	81 percent average

* Preliminary data furnished by U. S. Geological Survey, Portland, Oregon

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Calapooya	Average	Fair
Clackamas	Average	Average
McKenzie	Average	Average
Molalla	Average	Fair
Santiam, North	Average	Average
Santiam, South	Average	Average
Willamette, Coast Fork	Average	Average
Willamette, Middle Fork	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottage Grove	30.0*	26.2	26.5	28.7
Cougar	155.2*	144.4	107.5	- -
Detroit	299.9*	285.0	260.2	268.2
Dorena	70.5*	61.6	68.4	64.8
Fern Ridge	94.2*	59.6	79.6	90.9
Hills Creek	200.0*	194.3	171.3	- -
Lookout Point	337.2*	282.8	292.0	296.0
Timothy Lake	61.7	61.6	53.9	58.9

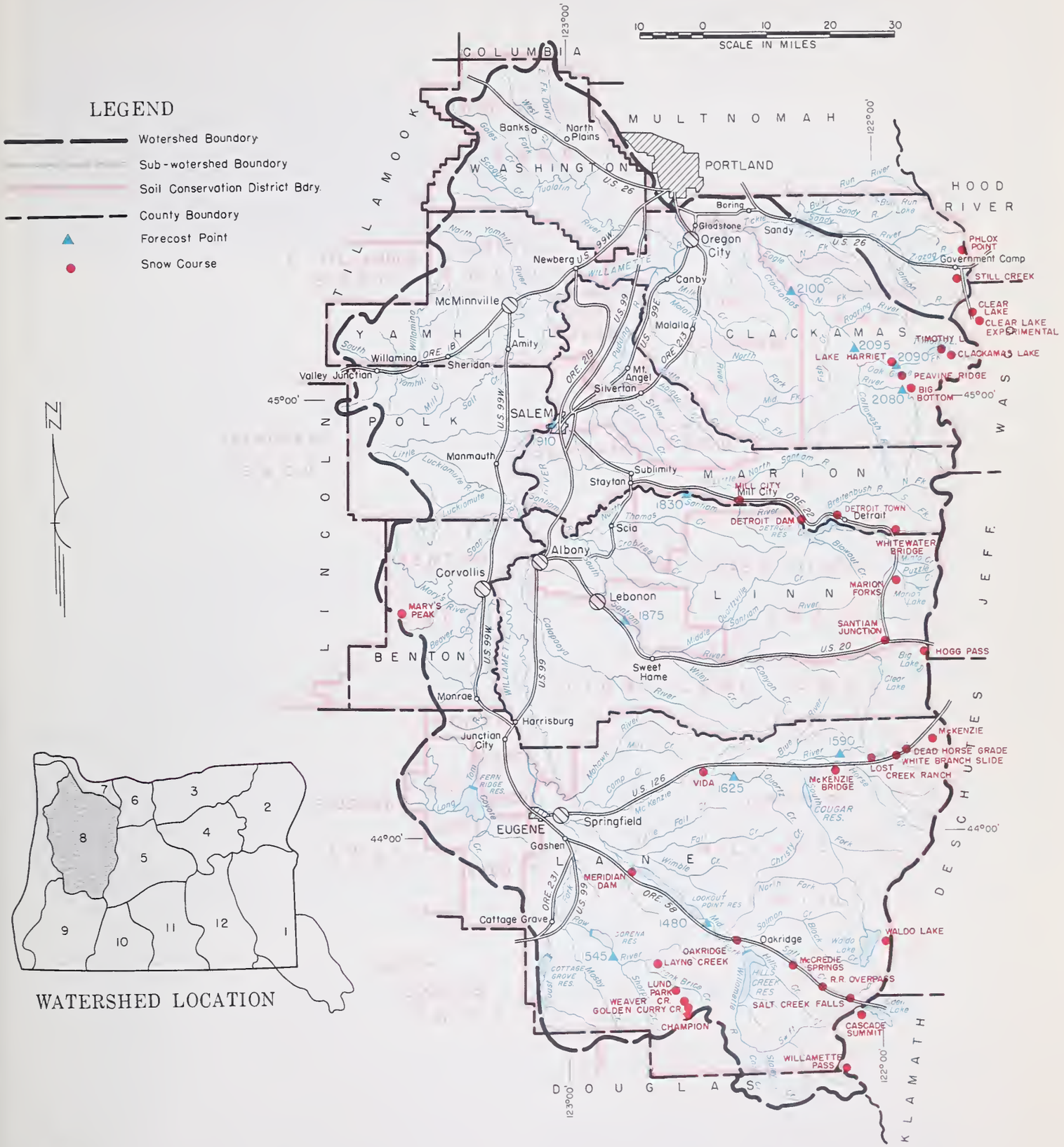
*Multiple purpose reservoir--space reserved primarily for flood runoff.

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
2080	Clackamas at Big Bottom	126	April-July	150	84
		153	April-Sept.	184	83
2100	Clackamas at Estacada	624	April-July	770	81
		720	April-Sept.	890	81
2095	Clackamas above Three Lynx	479	April-July	584	82
		553	April-Sept.	683	81
1590	McKenzie at McKenzie Bridge	432	April-July	502	86
		560	April-Sept.	658	85
1625	McKenzie near Vida	985	April-July	1144	86
		1185	April-Sept.	1392	85
2090	Oak Grove Fork above Power Intake	122	April-July	147	83
		160	April-Sept.	190	84
1545	Row near Dorena	89	April-July	108	82
		91	April-Sept.	112	81
1830	Santiam, North at Mehama[d]	743	April-July	884	84
		832	April-Sept.	991	84
1875	Santiam, South at Waterloo	560	April-July	637	88
		594	April-Sept.	675	88
1480	Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge[d]	734	April-July	863	85
		825	April-Sept.	968	85
1910	Willamette at Salem[d]	4185	April-July	5040	83
		4620	April-Sept.	5566	83

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

WILLAMETTE WATERSHEDS



SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
					WATER CONTENT (Inches)	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE
Cascade Summit	4880	5/28	9	4.7	14.6	- -
Cascade Summit (Alternate)	4880	5/28	8	3.8	- -	- -
Clear Lake	3500	5/28	0	0.0	0.4	- -
Clear Lake (Experimental)	3500	5/28	0	0.0	2.4	- -
McCredie Springs	2120	5/28	0	0.0	0.0	- -
Meridian Dam	750	5/28	0	0.0	0.0	- -
Oakridge	1310	5/28	0	0.0	0.0	- -
Phlox Point	5600	6/1	43	24.5	83.3	45.3[m]
Railroad Overpass	2750	5/28	0	0.0	0.0	- -
Salt Creek Falls	4000	5/28	0	0.0	6.4	- -
Still Creek	3700	5/28	0	0.0	18.4	0.9[m]

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
ROGUE, UMPQUA, WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in Jackson, Josephine and Douglas Counties are experiencing near average water supplies in the 1965 season. Although May has been a cool, dry month the reservoir water supplies are excellent and streamflow will be near average.

SNOW COVER

The mountain snowpack has completely disappeared except at high elevations in sheltered locations.

SOIL MOISTURE

Watershed soils in the higher elevations are still very wet but in the lower valleys the soil surface is drying rapidly.

RESERVOIR STORAGE

Fish Lake and Fourmile Lake reservoirs contain a total of 24,200 acre feet compared with 22,000 acre feet one year ago. This is an excellent supply for the operations of the Medford and Rogue River Valley Irrigation District.

Howard Prairie, Hyatt Prairie, and Emigrant Gap Reservoirs contain a total of 112,500 acre feet compared with 113,000 a.f. just one year ago. This is an ample supply for the Talent Irrigation District.

STREAMFLOW

Flow of Rogue River at Raygold* was 190,400 acre feet or 71 percent of average during May.

The following April through September forecasts are compared with average flows for the 15 year period, 1948-62:

North Umpqua near Toketee	170,000 acre ft.	91 percent average
Clearwater above Trap Creek	71,000 acre ft.	95 percent average
Applegate near Copper	124,000 acre ft.	87 percent average
Illinois at Kerby	188,000 acre ft.	89 percent average

continued on next page

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The following forecasts are for the May-September period:

Rogue above Prospect	234,000 acre ft.	86 percent average
Rogue below South Fork	498,000 acre ft.	85 percent average
Rogue at Raygold	620,000 acre ft.	85 percent average

* Preliminary data furnished by U. S. Geological Survey, Portland, Oregon

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Althouse Creek	Average	Average
Applegate River, Big	Average	Average
Applegate River, Little	Average	Average
Ashland Creek	Average	Average
Butte Creek, Little	Average	Average
Butte Creek, Big	Average	Average
Cow Creek	Average	Average
Deer Creek	Average	Average
Elk Creek	Average	Average
Emigrant Creek (abv. Res.)	Average	Average
Evans Creek	Average	Average
Gold Hill Irrigation Dist.	Excellent	Average
Grants Pass Irrig. Dist.	Excellent	Average
Grave Creek	Average	Average
Illinois River, East Fork	Average	Average
Illinois River, West Fork	Average	Average
Jump-off-Joe Creek	Average	Average
Neil Creek	Average	Average
Red Blanket Creek	Average	Average
Rogue River	Average	Average
Sucker Creek	Average	Average
Table Rock Irrig. Dist.	Excellent	Average
Thompson Creek	Average	Average
Wagner Creek	Average	Average
Williams Creek	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Emigrant Gap	39.0	35.8	35.9	35.9*
Fish Lake	7.8	7.9	6.4	7.0
Fourmile Lake	16.1	16.3	15.6	12.8
Howard Prairie	60.0	60.5	60.6	- -
Hyatt Prairie	16.1	16.2	16.5	14.0

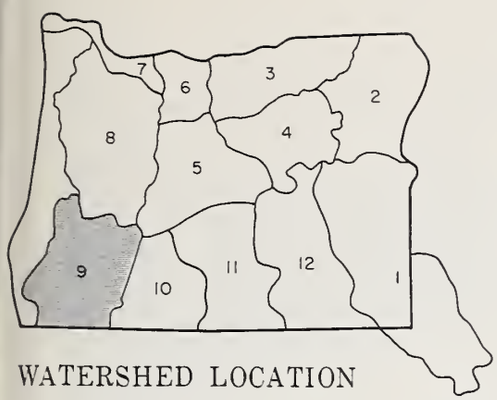
*Avg. for years of record after reconstruction.

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

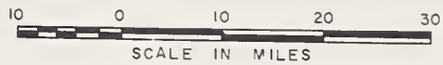
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3620	Applegate near Copper	124	April-Sept.	142	87
3145	Clearwater above Trap Creek[d]	71	April-Sept.	75	95
5045	Fourmile Lake net Inflow[d]	6.3	April-Sept.	6.6	95
5140	Hyatt Reservoir net Inflow[d]	3.2	May-Sept.	3.4	94
3770	Illinois River at Kerby	185	April-July	206	90
		188	April-Sept.	212	89
3425	Little Butte, N. Fk. at Fish Lk. nr. Lake Cr.[d]	14.0	April-Sept.	16.0	88
3415	Little Butte, So. Fk. nr. Lake Creek	32	April-July	38	84
	Note: Minimum flow dropped to 100 c.f.s. about May 19.				
3280	Rogue above Prospect	182	May-July	212	86
		234	May-Sept.	272	86
3320	Rogue, South Fork near Porspect[d]	45	May-July	52	87
		56	May-Sept.	64	87
3350	Rogue River below South Fork	381	May-July	443	86
		498	May-Sept.	586	85
3590	Rogue at Raygold near Central Point	488	May-July	567	86
		620	May-Sept.	730	85
3615	Rogue at Grants Pass	595	May-Sept.	700	85
3135	Umpqua, No. blw. Lemolo Res. nr. Toketee Falls[d]	170	April-Sept.	186	91

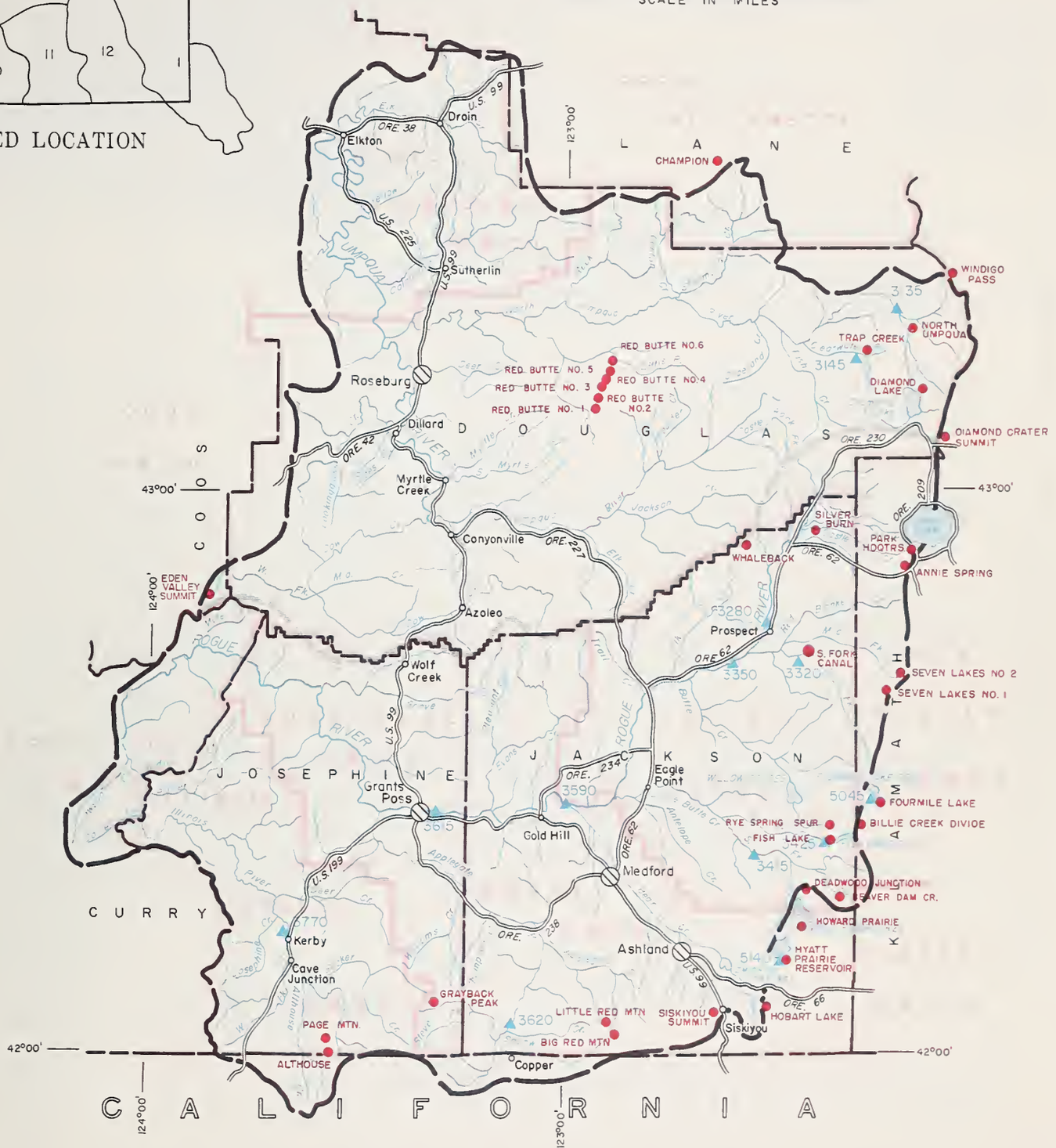
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

ROGUE, UMPQUA WATERSHEDS



WATERSHED LOCATION





LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- Forecast Point
- Snow Course

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
					WATER CONTENT (Inches)	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE
Red Butte #1	4560	5/28	0	0.0	0.0	- -
Red Butte #2	4000	5/28	0	0.0	0.0	- -
Red Butte #3	3500	5/28	0	0.0	0.0	- -
Red Butte #4	3000	5/28	0	0.0	0.0	- -
Red Butte #5	2500	5/28	0	0.0	0.0	- -
Red Butte #6	2000	5/28	0	0.0	0.0	- -

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
KLAMATH WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in Klamath Basin are experiencing average to excellent water supplies in the 1965 season.

SNOW COVER

Mountain snowpacks, which were exceptionally heavy at mid-winter, have melted off at all low and moderate elevations but remain reasonably heavy at very high elevations, especially under forest shade conditions.

SOIL MOISTURE

Watershed soils in the upper elevations are very wet but at low elevations the top soil is drying out rapidly.

RESERVOIR STORAGE

Stored water in Gerber and Clear Lake Reservoirs was 80,500 and 286,500 acre feet on June 1, compared with 60,500 and 153,000 a.f. one year ago. This is an adequate supply for lands served from these reservoirs, and the probability of carry-over at the end of the season is good.

Upper Klamath Lake contains 543,900 acre feet now compared with 503,900 last year on this date.

STREAMFLOW

Inflow to Upper Klamath Lake* in May was 156,400 acre feet or 90 percent of the 15 year average, 1948-62.

Forecast of inflow to Gerber and Clear Lake Reservoirs for the May-September period are set at 4,000 and 12,000 acre feet or 64 and 69 percent average respectively.

Flow of Sprague River near Chiloquin is forecast at 175,000 acre feet or 92 percent average, May through September. Flow of the Williamson below Sprague is forecast at 302,000 acre feet or 90 percent average for the same period.

Inflow to Upper Klamath Lake is forecast at 395,000 acre feet or 90 percent average for May through September.

* Preliminary data furnished by Pacific Power & Light Co., Portland, Oregon

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Ft. Klamath Valley	Excellent	Average
Lost River (Clear Lake)	Excellent	Average
Lost River (Gerber)	Excellent	Average
Lost River (Willow Res.)	Excellent	Average
Sprague River	Excellent	Average
Upper Klamath Lake	Excellent	Average
Williamson River	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Clear Lake	440.2	286.5	153.0	249.2
Gerber	94.0	80.5	60.5	56.7
Upper Klamath Lake	584.0	543.9	503.9	541.4

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

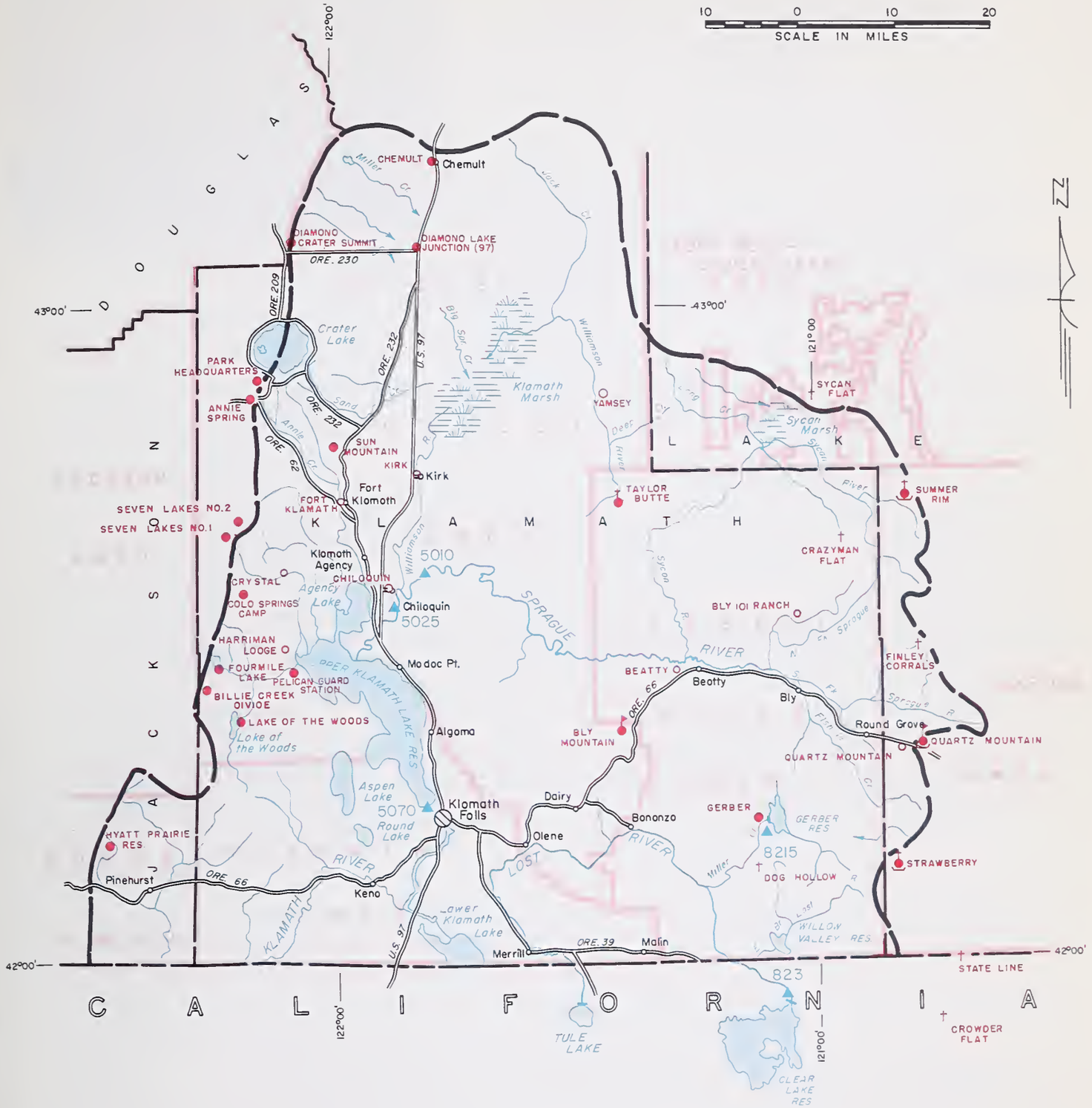
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
923	Clear Lake Reservoir Inflow[k]	12.0	May-Sept.	17.4	69
8215	Gerber Reservoir Inflow[k]	4.0	May-Sept.	6.2	64
5010	Sprague near Chiloquin	175	May-Sept.	190	92
5070	Upper Klamath Lake net Inflow[k]	395	May-Sept.	438	90
5025	Williamson below Sprague River	302	May-Sept.	336	90

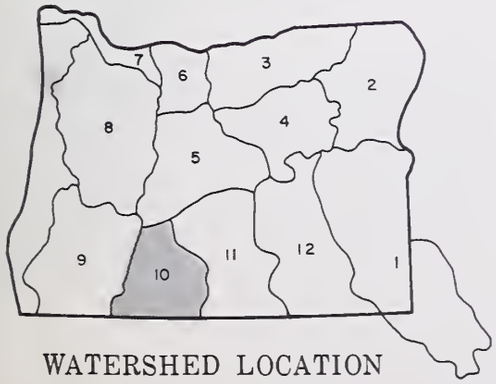
SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Bly Mountain	5090	42	14.0	4-30-65	12.5[f]	12.6[f]	12.9[f]

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

KLAMATH WATERSHEDS





WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- Forecast Point
- Snow Course
- Aeriol Snow Depth Gage
- COPCO Snow Station
- Soil Moisture Station
- Precipitation Gage

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
LAKE COUNTY, GOOSE LAKE WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users of Lake County are experiencing average to excellent water supplies in the 1965 season and can expect these conditions to prevail unless below normal temperature and precipitation conditions occur during the balance of the runoff season.

SNOW COVER

Mountain snowpacks have all disappeared but heavy drifts remain at some very high protected areas.

SOIL MOISTURE

Watershed soils are very well wetted at high elevations but are rapidly drying out at low valley points.

RESERVOIR STORAGE

Drews Valley Reservoir contains about 62,700 acre feet compared with 57,900 acre feet one year ago. Cottonwood Reservoir holds about 7,900 acre feet compared with 3,900 a.f. last year. Lakeview Water Users should have adequate water for 1965 operations.

STREAMFLOW

Reports from long-time residents indicate that there is more water now in Bluejoint Lake in Warner Valley than at anytime in the past 30 to 40 years, and water is still coming into the lake.

Inflow to Drews Reservoir is forecast at 11,000 acre feet or 97 percent average for the May-September period.

Flow of the Chewaucan River is forecast at 95,000 acre feet or 108 percent average April through September.

Forecasts for Warner Valley streams for the April through September period are as follows:

Honey Creek near Plush	15,500 acre feet	96 percent average
Deep Creek above Adel	75,000 acre feet	104 percent average
Twentymile Creek near Adel	21,000 acre feet	94 percent average

Flow of smaller streams is expected to be near the average.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Chewaucan	Average	Average
Crooked	Average	Average
Deep Creek	Average	Average
Dry Creek	Average	Average
East Side Goose Lake	Average	Average
Guano Lake	Average	Average
Honey Creek	Average	Average
Lakeview Water Users Assn.	Excellent	Average
Rock Creek (Hart Mtn.)	Average	Average
Silver-Buck Creeks	Average	Average
Summer Lake	Average	Average
Thomas Creek	Average	Average
Twentymile Creek	Average	Average
Warner Lakes	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottonwood	8.7	7.9	3.9	6.4
Drews	63.0	62.7	57.9	52.5*

*2 yr. avg. after reconstruction.

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

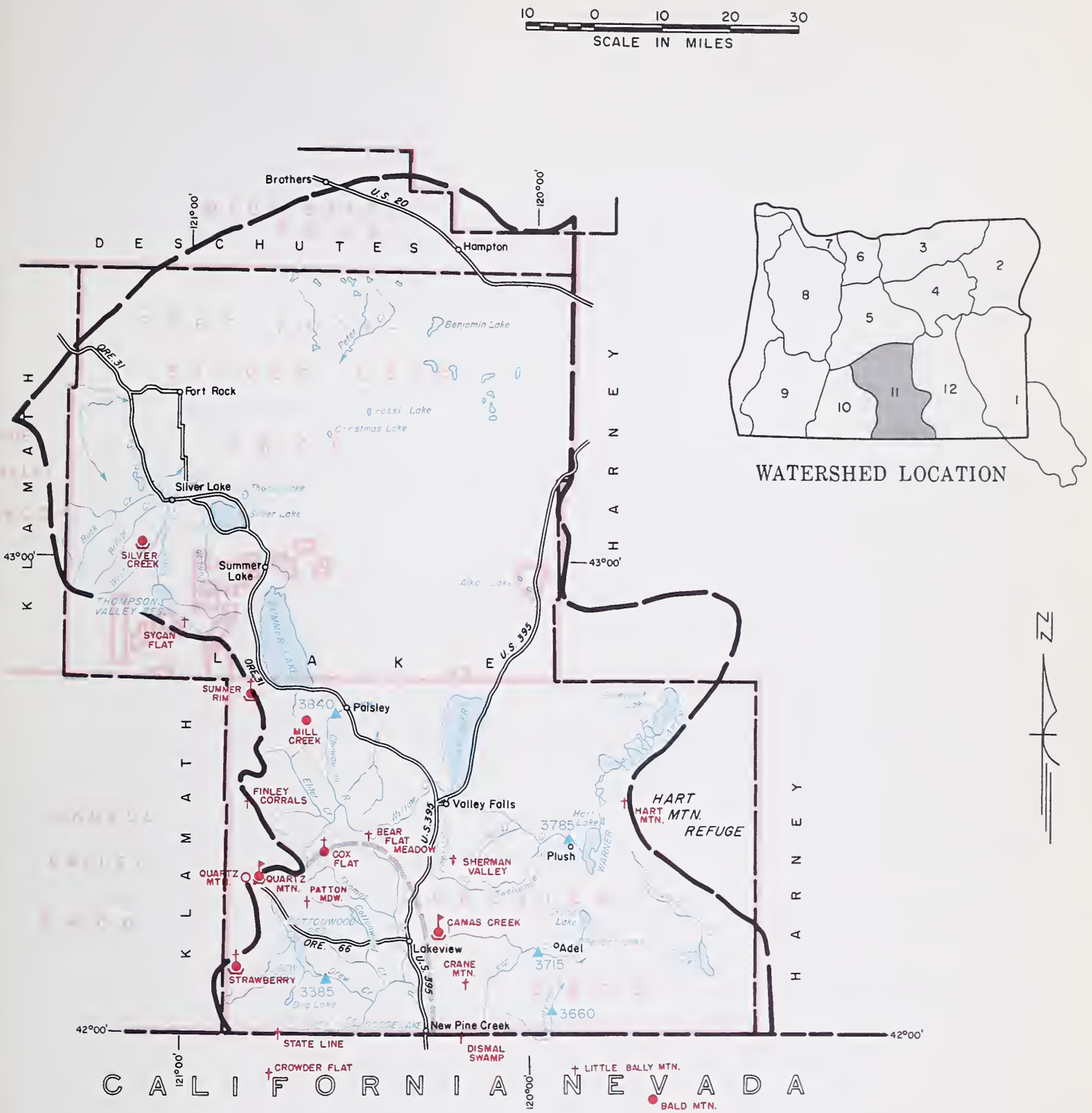
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3840	Chewaucan near Paisley	85	April-June	79	108
		95	April-Sept.	88	108
3715	Deep above Adel	70	April-June	68	103
		75	April-Sept.	72	104
3385	Drews Reservoir net Inflow[d]	11.0	May-Sept.	11.4	97
3785	Honey near Plush	14.8	April-June	15.6	95
		15.5	April-Sept.	16.1	96
3660	Twentymile near Adel	20	April-June	21	95
		21	April-Sept.	22	94

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Camas Creek	5720	42	14.5	5-28-65	12.8	12.8	12.9
Quartz Mountain	5320	48	15.3	6-4-65	10.2	9.3	11.0[f]

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

LAKE COUNTY, GOOSE LAKE WATERSHEDS



WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- Forecast Point
- Snow Course
- Aeriol Snow Depth Gage
- COPCO Snow Station
- Soil Moisture Station
- Precipitation Gage

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
HARNEY BASIN WATERSHEDS
OREGON

as of
JUNE 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Ranchers in Harney County are experiencing about average water supplies in the 1965 season. Flow of larger streams has been good but small streams are receding rapidly.

SNOW COVER

Snow drifts remain at the higher elevations in the more protected areas but low and moderate-elevation snow has long been gone.

SOIL MOISTURE

Lower elevation soils are drying out rapidly although high elevation soils are still very well wetted. Rainfall is needed.

STREAMFLOW

Flow of most streams has been good so far this year but flow of Silver Creek and smaller streams has now fallen off.

Forecasts of the April through September flow of Harney County streams are set at 91 to 95 percent of the 15 year average (1948-62) as follows:

Silvies River near Burns	91,000 acre feet	92 percent average
Blitzen River near Frenchglen	56,000 acre feet	91 percent average
Trout Creek near Denio	8,000 acre feet	95 percent average

The flow of Silver Creek near Riley for the April-July period is forecast at 20,000 acre feet or 91 percent of the average.

All forecasts assume that average conditions of temperature and rainfall will prevail during the balance of the runoff period.

Report prepared by
W.T. FROST AND BOB L. WHALEY
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Catlow Valley	Average	Average
Cow Creek	Average	Average
Donner und Blitzen River	Average	Average
Mill-Coffeepot Creeks	Average	Average
Rattlesnake Creek	Average	Average
Silver Creek	Average	Average
Silvies River	Average	Average
Soldier-Prather Creek	Average	Average
Trout Creek	Average	Average
Whitehorse Creek	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) June 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of June 1, 1965

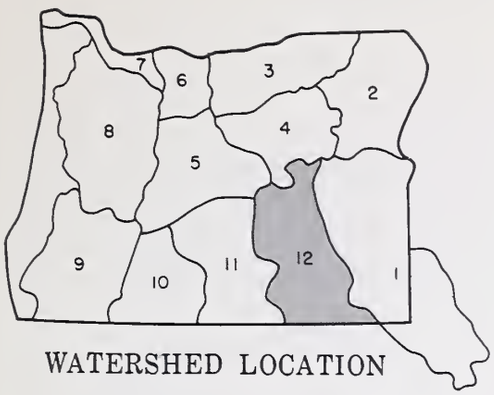
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3960	Donner und Blitzen near Frenchglen	48	April-June	52	92
		56	April-Sept.	62	91
4030	Silver near Riley	20	April-July	22	91
3935	Silvies near Burns	89	April-June	96	93
		91	April-Sept.	99	92
4065	Trout near Denio	7.1	April-June	7.4	96
		8.0	April-Sept.	8.4	95

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Blue Mountain Springs	5900	42	16.9	5-25-65	13.5	12.5	14.4
Fish Creek	7900	48	15.0	c			
Folly Farm	4450	30	12.5	4-7-65	12.1[f]	- -	- -[f]
Silvies	6900	48	16.4	3-30-65	13.4[f]	10.4[f]	13.3[f]
Snow Mountain	6300	48	16.7	6-4-65	16.6	14.3	- -
Starr Ridge	5150	36	10.6	5-25-65	10.4	10.4[f]	10.4[f]
Stinking Water Summit	4800	48	21.9	4-7-65	21.9[f]	21.1[f]	21.9[f]
Willow-Bald	5000	24	6.6	6-4-65	6.2	5.9	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HARNEY BASIN WATERSHEDS



WATERSHED LOCATION

10 0 10 20 30
SCALE IN MILES

N

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Aerial Snow Depth Gage
- Soil Moisture Station
- Precipitation Gage

OR-12c

"The Conservation of Water begins with the Snow Survey"

PREVIOUSLY UNPUBLISHED OREGON SNOW SURVEY DATA
1964-65 Season

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Beaver Dam Creek	22G28	1/13/65	31	8.9
Cascade Summit	22F3	1/14/65	74	26.2
		2/12/65	76	30.5
		3/15/65	71	33.3
		4/15/65	63	31.2
Cascade Summit (Alternate)	22F29	1/1/65	66	18.1
		1/14/65	72	25.3
		1/28/65	81	32.6
		2/12/65	75	30.5
		2/26/65	75	32.1
		3/15/65	69	31.7
		3/30/65	70	30.8
		4/14/65	64	30.0
		4/29/65	33	16.6
Champion	22F29	1/14/65	64	19.6
Cooper Spur	21D25	11/17/64	4	1.2
		12/1/64	4	1.3
		12/15/64	18	4.2
		1/15/65	33	10.8
		2/15/65	34	13.8
Deadwood Junction	22G27	1/13/65	19	5.3
Detroit City	22E1	1/14/65	11	4.2
		2/11/65	0	0.0
		3/15/65	0	0.0
		4/15/65	0	0.0
Detroit Dam	22E2	1/14/65	2	1.0
		2/11/65	0	0.0
		3/15/65	0	0.0
		4/15/65	0	0.0
Fish Creek (Ground survey)	18G2	2/3/65	73	26.7
Gerber Dam	21G4	1/15/65	14	4.2
		2/15/65	4	1.3

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Goodrich Lake	18E6	1/7/65	116	38.8
		3/6/65	138	49.7
		4/1/65	93	40.0
Hogg Pass	21E6	1/13/65	87	31.5
		2/11/65	96	38.4
		3/15/65	93	42.6
		4/15/65	89	42.5
Howard Prairie	22G26	1/13/65	23	6.1
Hyatt Prairie Res.	22G16	1/9/65	30	6.3
Intake House	18E29	1/26/65	54	16.0
Lake of the Woods	22G15	1/15/65	28	7.4
		2/18/65	24	11.2
		3/12/65	22	9.6
		4/18/65	6	3.0
		5/14/65	0	0.0
Layng Creek R.S.	22F13	1/14/65	0	0.0
Marion Forks	21E4	1/13/65	28	9.5
		2/11/65	26	9.9
		3/15/65	31	13.6
		4/15/65	7	3.0
McCredie Springs	22F6	2/12/65	0	0.0
		3/15/65	0	0.0
		4/14/65	0	0.0
Meridian Dam	22F8	2/12/65	0	0.0
		3/15/65	0	0.0
		4/14/65	0	0.0
Mill City	22E3	1/14/65	0	0.0
		2/11/65	0	0.0
		3/15/65	0	0.0
		4/15/65	0	0.0
Mowich	21F17	1/29/65	0	0.0
North Umpqua	22F16	5/6/65	T	T
Oakridge	22F7	2/12/65	0	0.0
		3/15/65	0	0.0
		4/14/65	0	0.0

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Parkdale	21D23	11/17/64	0	0.0
		12/1/64	0	0.0
		12/15/64	6	1.6
		1/15/65	12	3.1
		2/15/65	0	0.0
Patton Meadows	20G17a	1/7/65	60	13.2
Phlox Point	21D8	2/17/65	126	55.5
Power Plant	18E28	1/26/65	35	8.7
Quartz Mountain	20G6	1/19/65	21	6.0
		2/15/65	15	6.3
		3/15/65	7	3.2
		4/15/65	0	0.0
Quartz Mountain (PP&L)	9	1/19/65	24	6.7
		2/15/65	18	7.3
		3/15/65	12	5.5
		4/15/65	5	2.4
Railroad Overpass	22F5	2/12/65	0	0.0
		3/15/65	0	0.0
		4/14/65	0	0.0
Salt Creek Falls	22F4	1/13/65	49	16.2
		2/12/65	47	19.0
		3/15/65	45	20.5
		4/14/65	37	18.1
Santiam Junction	21E5	1/13/65	55	18.7
		2/11/65	54	22.5
		3/15/65	40	18.8
		4/15/65	17	8.0
Siskiyou Summit (Alternate)	22G23	1/15/65	30	9.8
		2/14/65	12	5.0
		3/13/65	2	0.8
		4/14/65	0	0.0
Strawberry	20G9	4/26/65	0	0.0
Three Creeks Butte	21E15	3/1/65	29	12.0
		4/2/65	2	0.8
Umbrella Falls #2	21D30	2/11/65	139	59.9

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Upper Valley	21D24	11/17/64	0	0.0
		12/1/64	T	T
		12/15/64	12	2.1
		1/15/65	17	5.3
		2/15/65	10	4.1
Whitewater Bridge	21E3	1/14/65	20	6.4
		2/11/65	19	7.8
		3/15/65	0	0.0
		4/15/65	0	0.0

ERRATA: 1965 SNOW MEASUREMENTS PUBLISHED IN ERROR

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Althouse	23G4			
Previously Published		1/29/65	23	11.2
Correct Data		1/29/65	23	11.3
Bly 101 Ranch (PP&L)	10			
Previously Published		12/31/64	8	0.9
Correct Data		12/31/64	10	1.5
Caldwell Ranch	21F8			
Previously Published		3/31/65	5	1.8
Correct Data		3/31/65	5	2.0
Crow Camp	18F8			
Previously Published		2/25/65	T	T
Correct Data		2/25/65	0	0.0
Diamond Crater Summit	22F19			
Previously Published		12/30/64	102	27.0
Correct Data		12/30/64	102	27.3
Eldorado Pass	18E20			
Previously Published		1/28/65	18	4.7
Correct Data		1/28/65	18	4.6
Marks Creek	20E1			
Previously Published		1/29/65	13	4.4
Correct Data		1/29/65	14	4.8

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Moss Springs	17D6			
Previously Published		12/29/64	48	13.1
Correct Data		12/29/64	49*	13.8*
*Course shortened--notes revised after January publication.				
Paulina Prairie	21F15			
Previously Published		1/20/65	7	2.0
Correct Data		1/20/65	7	1.9
Phlox Point	21D8			
Previously Published		2/2/65	104	44.9
Correct Data		2/2/65	104	46.8
Quartz Mountain	20G6			
Previously Published		12/31/64	11	2.4
Correct Data		1/2/65	11	2.5
Red Canyon	16G11a			
Previously Published		2/1/65	15	7.0
Correct Data		2/1/65	15	6.0
Silvies	18G1			
Previously Published		2/1/65	24	8.4
Correct Data		2/3/65	24	10.2
Previously Published		3/30/65	33	12.3
Correct Data		3/30/65	33	14.0
Snow Mountain	19F1			
Previously Published		12/31/64	40	9.9
Correct Data		12/31/64	41	9.9
Tangent	21F3			
Previously Published		4/1/65	50	22.3
Correct Data		4/1/65	48	22.3
Tilly Jane	21D7			
Previously Published		1/21/65	92	35.8
Correct Data		1/31/65	92	35.8
Trap Creek	22F17			
Previously Published		1/5/65	31	8.6
Correct Data		1/5/65	32	8.8
Previously Published		5/5/65	0	0.0
Correct Data		5/6/65	T	T

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Umbrella Falls	21D30			
Previously Published		2/2/65	124	55.8
Correct Data		2/2/65	124	55.9
"V" Lake	18G7			
Previously Published		2/1/65	0	0.0
Correct Data		2/1/65	10	3.5
White Branch Slide	21E9			
Previously Published		1/4/65	25	4.3
Correct Data		1/4/65	26	4.3

NUMBER	NAME	LOCATION SEC.	TWP.	RGE.	ELEV.

OWYHEE, MALHEUR WATERSHEDS (1)

Owyhee River

16G6	Antelope Ridge	(Ida)	20	8S	1W 5900
16G9a	Battle Creek	(Ida)	10	11S	1E 5700
15H1MA	Bear Creek	(Nev)	31	46N	58E 7800
15H4MP	Big Bend	(Nev)	30	45N	56E 6700
17G2m	Blue Mtn Pass		4	38S	42E 5290
17H2	Buckskin, Lower	(Nev)	25	45N	39E 6700
17H1	Buckskin, Upper	(Nev)	11	45N	39E 7200
16G10a	Bull Basin	(Ida)	29	12S	5W 5600
18H1	Disaster Peak	(Nev)	8	47N	34E 6500
18G2MA	Fish Creek		4	33S	33E 7900
18G3e	Folly Farm Summit		8	30S	38E 4450
15H2	Fox Creek	(Nev)	33	46N	58E 6800
15H7	Fry Canyon	(Nev)	31	43N	54E 6700
15H5	Gold Creek	(Nev)	31	45N	56E 6600
17H4	Granite Peak	(Nev)	22	44N	39E 7800
16G5a	Hyde Feature	(Ida)	31	8S	2W 5800
16H1M	Jack Creek, Lower	(Nev)	18	42N	53E 6800
16H2	Jack Creek, Upper	(Nev)	9	42N	53E 7250
16H4	Jack Peak	(Nev)	28	42N	53E 8420
17G3m	Jordan Valley		9	30S	46E 4390
17G6a	Lookout Butte		2	40S	47E 5650
17G4a	Louse Canyon		27	40S	44E 6440
17H3	Martin Creek	(Nev)	18	44N	40E 6700
16H3	Midas	(Nev)	1	39N	48E 7200
16G7M	Mud Flat	(Ida)	34	9S	2W 5500
17G5a	Oregon Canyon		8	40S	40E 6950

NUMBER	NAME	LOCATION SEC.	TWP.	RGE.	ELEV.
17H6a	Quinn Ridge	(Nev)	9	47N	41E 6300
16G11a	Red Canyon	(Ida)	32	11S	4W 6500
15H6MP	Rodeo Flat	(Nev)	36	43N	53E 6800
15H3A	76 Creek	(Nev)	6	44N	58E 7100
16F3	Silver City	(Ida)	6	5S	3W 6400
18G1MA	Silvies		35	32S	32½E 6900
16G1	South Mountain No.2	(Ida)	10	8S	5W 6340
16F6a	Succor Creek	(Ida)	25	3S	5W 6100
15H9MP	Taylor Canyon	(Nev)	35	39N	53E 6200
15H8	Tremewan Ranch	(Nev)	9	39N	55E 5700
16G4MA	Triangle	(Ida)	25	7S	3W 5150
18G5a	Trout Creek		10	21S	38E 7800
18G7a	"V" Lake		31	35½S	32½E 6600

Malheur River

18E14	Barney Creek		16	14S	36E 5950
18E16MP	Blue Mountain Spring		21	15S	35E 5900
18F6a	Buck Pasture		21	29S	35E 5700
18E21a	Bully Creek		10	17S	37E 5300
18F7a	Gall Meadows		29	20S	33E 5340
17F2a	Cottonwood-Indian		10	19S	39E 4320
18E19M	Crane Prairie		24	16S	34E 5375
18F8a	Grov Camp			Unsurveyed	
18E20	Eldorado Pass		20	14S	38E 4600
18E26a	Flag Prairie		32	16S	36E 4750
18E18	Lake Creek		10	16S	33½E 5120
18E22a	Logan Valley		13	16S	33½E 5100
18F1	Rock Spring		23	18S	32E 5100
18F4MP	Stinking Water		33	21S	34E 4800

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS (2)

Burnt River

13E14	Barney Creek		16	14S	36E 5950
18E13M	Blue Mountain Summit		6	12S	36E 5098
17E1M	Dooley Mountain		32	11S	40E 5430
18E20	Eldorado Pass		20	14S	38E 4600
18E8	Gold Center		21	9S	36E 5340
18E9	Tipton		34	10S	35½E 5100

Powder River

18E1	Anthony Lake		18	7S	37E 7125
18E5	Bourne		33	8S	37E 5800
17E1M	Dooley Mountain		32	11S	40E 5430
18E3	Eilertson Meadows		18	8S	38E 5400
18E8	Gold Center		21	9S	36E 5340
18E6	Goodrich Lake		4	9S	38E 6775
17D12m	Ladd Summit		5	5S	39E 3730
18E23	Little Alps		10	7S	37E 6200
18D10	Summit Springs		9	6S	37E 6000
17D7	Taylor Green		3	6S	42E 5740

Pine Creek

17D8	Schneider Meadows		35	6S	45E 5400

Grande Ronde River

17D1	Aneroid Lake No. 1		16	4S	45E 7480
17D2P	Aneroid Lake No. 2		16	4S	45E 7300
18E1	Anthony Lake		18	7S	37E 7125
17D10a	Bald Mountain		14	4S	41E 6700
18D9	Beaver Reservoir		8	5S	37E 5340
18D8	County Line		28	4S	34E 4800
18D6	Lucky Strike		28	3S	32E 5050
18D5	Meacham	24 &	25	1S	35E 4300
17D13a	Mirror Lake		34	4S	44E 8200
17D6M	Moss Spring		28	3S	41E 5850
18D7	Schoolmarm		28	4S	34E 4775
17D11e	Standley		28	2S	42E 7400
17D7	Taylor Green		3	6S	42E 5740
18D3M	Tollgate		31	4N	38E 5170
17D15a	TV Ridge		11	2S	43E 5670

Imnaha River

17D1	Aneroid Lake No. 1		16	4S	45E 7480
17D2P	Aneroid Lake No. 2		16	4S	45E 7000
17D14e	Big Sheep		33	4S	46E 6200

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS (3)

Umatilla River

19D2	Arbuckle Mountain		33	4S	29E 5400
18D14m	Athene-Weston Summit		21	4N	35E 1700
18D12M	Battle Mountain Summit		29	3S	31E 4340
18D4M	Emigrant Springs		29	1N	35E 3925
18D6	Lucky Strike		28	3S	32E 5050
18D5	Meacham	24 &	25	1S	35E 4300
18D3N	Tollgate		32	4N	38E 5070
18D13	Walla Walla Diversion		22	6N	38E 2200

Walla Walla River

18D16	Blue Mountain Camp		35	4N	37E 4300
18D3M	Tollgate		32	4N	38E 5070
18D17	Weston Mountain		25	4N	35E 2700

Willow Creek

19D2	Arbuckle Mountain		33	4S	29E 5400

NUMBER	NAME	LOCATION SEC.	TWP.	RGE.	ELEV.

UPPER JOHN DAY WATERSHEDS (4)

Upper John Day River

18E1	Anthony Lake		18	7S	37E 7125
19D2	Arbuckle Mountain		33	4S	29E 5400
18D12M	Battle Mountain Summit		29	3S	31E 4340
19E2M	Beech Creek Summit		4	12S	30E 4800
18E16MP	Blue Mountain Spring		21	15S	35E 5900
18E13M	Blue Mountain Summit		6	12S	36E 5098
19E3MP	Derr		14	13S	23E 5670
18E27a	East Fork Canyon		15	15S	32E 5700
18E8	Gold Center		21	9S	36E 5340
18E24a	Indian Cr. Butte		5	15S	33E 6550
19E9P	Izee Summit		28	16S	29E 5293
18D6	Lucky Strike		28	3S	32E 5050
20E1MP	Marks Creek		25	12S	19E 4540
20E2	Ochoco Meadows		21	13S	20E 5200
18D7	Schoolmarm		28	4S	34E 4775
19F1M	Snow Mountain		1	19S	26E 6300
19E7M	Starr Ridge		20	15S	31E 5150
18E9	Tipton		34	10S	35½E 5100
18E25MP	Williams Ranch		20	15S	32E 4500

UPPER DESCHUTES, CROOKED WATERSHEDS (5)

Upper Deschutes River

21E11	Black Pine Spring		14	16S	9E 4600
21F8	Caldwell Ranch		30	21S	8E 4400
22F3	Cascade Summit		7	23S	6E 4880
21F7	Charlton Lake		23	21S	6E 5750
21F11	Chemult		21	27S	8E 4760
21F14	Fire Road		36	21S	11E 5050
21E6	Hogg Pass		24	13S	7½E 4755
21F4	Hungry Flat		30	18S	11E 4400
21F6	Irish-Taylor		25	20S	6E 5500
21F17	Mowich		29	25S	25E 4700
21F10	New Crescent Lake		11	24S	6E 4800
21F19	New Dutchman Flat #2		21	18S	9E 6400
21F13	Pauline Lake		34	21S	12E 6330
21F15	Paulins Prairie		28	21S	11E 4285
21F3	Tangent		28	18S	10E 5400
21E15	Three Creeks Butte		27	16S	9E 5200
21E13	Three Creek Meadows		34	16S	9E 5650
22F2	Walde Lake		15	21S	6E 5500
22F14	Willamette Pass		33	24S	5½E 5600
22F15	Windigo Pass		20	25S	6E 5800

Crooked River

19E3MP	Derr		14	13S	23E 5670
20E1MP	Marks Creek		25	12S	19E 4540
20E2	Ochoco Meadows		21	13S	20E 5200
19F1M	Snow Mountain		1	19S	26E 6300
19E4	Tamarack		8	15S	25E 4800

HOOD, MILE CREEKS LOWER DESCHUTES WATERSHEDS (6)

Hood River

21D5	Brooks Meadows		2	2S	10E 4300
21D25M	Gooper Spur		6	2S	10E 3490
21D1	Greenpoint Reservoir		28	2N	9E 3400
21D20	Knebal Springs		31	1S	11E 3850
21D23	Parkdale		6	3S	10E 1770
21D8	Phlox Point		6	3S	9E 5600
21D4	Red Hill		20	1S	9E 4400
21D9	Still Creek		25	3S	8½E 3700
21D7	Tilly Jane		15	2S	9E 6000
21D21	Ulrich Ranch Junction		28	1S	11E 3350
21D30	Umbrella Falls		3	3S	9E 5400
21D24	Upper Valley		20	1S	10E 2530
21D28	Switchback		28	1S	9E 3255

Mile Creeks - Mosier Creek

21D6	Brooks Meadows		2	2S	10E 4300
21D20	Knebal Springs		31	1S	11E 3850
21D21	Ulrich Ranch Junction		28	1S	11E 3350

Lower Deschutes River

21D12	Clear Lake		29	4S	9E 3500
21D22	Clear Lake Experimental		29	4S	9E 3500
21E6	Hogg Pass		24	13S	7½E 4755

LOWER COLUMBIA WATERSHEDS (7)

Sandy River

21D8	Phlox Point		6	3S	9E 5600
21D9	Still Creek		25	3S	8½E 3700

WILLAMETTE WATERSHEDS (8)

Clackamas River

21D15	Big Bottom		25	6S	7E 2118
21D13	Clackamas Lake		35	5S	8½E 3400
21D12	Clear Lake		29	4S	9E 3500
21D16	Lake Harriet		4	6S	7E 2045
21D14	Peavine Ridge	14 &	15	6S	7E 3500
21D8	Phlox Point		6	3S	9E 5600
21D9	Still Creek		25	3S	8½E 3700
21D17	Timothy Lake		26	5S	8E 3295

Santiam River

22E1	Detroit (town)		1	10S	5E 1610
22E2	Detroit Dam		7	10S	5E 1680
21E6	Hogg Pass		24	13S	7½E 4755
21E4	Marion Forks		28	11S	7E 2730
22E3	Mill City		29	9S	3E 826
21E5	Santiam Junction		14	13S	7E 3990
21E3	Whitewater Bridge		28	10S	7E 2175

McKenzie River

21E8	Dead Horse Grade		13	16S	7E 3800
22E4	Lost Creek Ranch		24	16S	6E 1956
21E7	McKenzie		35	15S	7½E 2800
22E5	McKenzie Bridge		13	16S	5E 1372
22E6	Vida		28	16S	2E 800
21E9	White Branch Slide		15	16S	7E 2800

NUMBER	NAME	LOCATION SEC.	TWP.	RGE.	ELEV.

Middle Fork Willamette River

22F3	Cascade Summit	7	23S	6E	4880
22F6	McGredie Springs	26	21S	4E	2120
22F8	Meridian Dam	13	19S	1W	750
22F7	Oakridge	16	21S	3E	1310
22F5	Railroad Overpass	27	22S	4E	2750
22F4	Salt Creek Falls	33	20S	6E	4000
22F2	Waldo Lake	15	21S	6E	5500
22F12	Willamette Pass	33	24S	5½E	5600

Coast Fork Willamette River

22F9	Champion	12	23S	1E	4500
22F10	Golden Curry Creek	1	23S	1E	3136
22F13	Layng Creek R. S.	31	21S	1E	1200
22F12	Lund Park	22	22S	1E	1740
22F11	Weaver Creek	35	22S	1E	2420

Mary's River

23E1	Mary's Peak	21	12S	7W	3620

ROGUE, UMPQUA WATERSHEDS (15)

Rogue River

23G4	Althouse	17	41S	7W	4530
22G6	Annie Spring	19	31S	6E	6018
22G28	Beaver Dam Creek	1	38S	4E	5100
22G21	Big Red Mountain	31	40S	1W	6500
22G13	Billlie Creek Divide	30	36S	5E	5300
22G27	Deadwood Junction	8	38S	4E	4600
22F19	Diamond-Crater Summit	34	28S	6E	5800
22G14	Fish Lake	3	37S	4E	4865
22G12	Fourmile Lake	9	36S	5E	6000
23G3	Grayback Peak	9	40S	5W	6000
22G17	Hobart Lake	17	40S	3E	5010
22G26	Howard Prairie	32	36S	4E	4500
22G16	Hyatt Prairie Reservoir	15	39S	3E	4900
22G22	Little Red Mountain	25	40S	2W	6500
23G5	Page Mountain	8	41S	7W	4045
22G5	Park Headquarters	8	31S	6E	6450
22G29	Rye Spring Spur	33	36S	4E	5000
22G10	Seven Lakes No. 1	3	34S	5E	6800
22G11	Seven Lakes No. 2	26	33S	5E	6200
22G2	Silver Burn	33	30S	4E	3720
22G20	Siskiyou Summit	17	40S	2E	4630
22G9	South Fork Canal	12	33S	3E	3500
22G1	Whaleback	3	31S	2E	5140

Umpqua River

22F9	Champion	12	23S	1E	4500
22F18	Diamond Lake	29	27S	6E	5315
23G7	Eden Valley Summit	10	32S	10W	2390
22F16	North Umpqua	19	26S	6E	4215
22F23	Red Butte No. 1	36	27S	2W	4560
22F24	Red Butte No. 2	30	27S	1W	4000
22F25	Red Butte No. 3	30	27S	1W	3500
22F26	Red Butte No. 4	36	27S	1W	3900
22F27	Red Butte No. 5	20	27S	1W	2500
22F28	Red Butte No. 6	17	27S	1W	2000
22F17	Trap Creek	1	27S	4E	3800
22G1	Whaleback	3	31S	2E	5140
22F15	Windigo Pass	20	25S	6E	5800

KLAMATH WATERSHEDS (10)

Klamath River

22G6	Annie Spring	19	31S	6E	6018
22G13	Billie Creek Divide	30	36S	5E	5300
21G5	Bly Mountain	15 &	22	23S	11E 5090
21F11	Chemult	21	27S	8E	4760
22G24	Gold Springs Gump	12	35S	5E	6100
20G12a	Crazyman Flat	9	34S	15E	6100
20H2a	Growder Flat	(Cal)	30	47N	11E 5200
22F19	Diamond-Crater Summit	34	28S	6E	5800
21F18	Diamond Lake Jct. (97)	1	29S	7E	4600
21G6a	Dog Hollow	1	40S	14E	4900
20G14a	Finley Gorrals	11	36S	16E	6000
22G12	Fourmile Lake	9	36S	5E	6000
21G4	Gerber	12	39S	13E	4850
22G16	Hyatt Prairie Reservoir	15	39S	3E	4900
22G26	Howard Prairie	32	36S	4E	4500
22G25	Lake of the Woods	11	37S	5E	4960
22G5	Park Headquarters	8	31S	6E	6450
22G25	Pelican Guard Station	9	36S	6E	4150
20G6MP	Quartz Mountain	2	36S	16E	5320
22G10	Seven Lakes No. 1	3	34S	5E	6800
22G11	Seven Lakes No. 2	26	33S	5E	6200
20H1a	State Line	(Cal)	21	48N	11E 5750
20G9AP	Strawberry	4	40S	16E	5760
20G2AP	Summer Rim	15	33S	16E	7200
21G2	Sun Mountain	22	32S	7½E	5500
20G13a	Sycan Flat	25	31S	14E	5500
21G3	Taylor Butte	16	33S	11E	5100

Pacific Power and Light Company's Snow Stations

1	Beatty (PP&L)	22	36S	12E	4300
10	Bly 101 Ranch (PP&L)	22	35S	14E	4800
3	Chiloquin (PP&L)	34	32S	7E	4187
4	Crystal (PP&L)	26	31S	6E	4200
5	Fort Klamath (PP&L)	22	33S	7½E	4150
6	Kirk (PP&L)	1	33S	7E	4533
9	Quarts Mountain (PP&L)	33	37S	16E	5504
8	Harriman Lodge (PP&L)	3	36S	6E	4200
12	Yamsey (PP&L)	20	31S	11E	4600

LAKE COUNTY, GOOSE LAKE WATERSHEDS (11)

Goose Lake

20G15a	Bear Flat Meadow		27	36S	19E 5900
20G8MP	Camas Creek		5	39S	21E 5720
20G11a	Cox Flat		16	37S	18E 5750
20G16a	Crane Mountain		13	40S	21E 6020
20H2a	Growder Flat	(Cal)	30	47N	11E 5200
20H3a	Dismal Swamp	(Cal)	31	48N	16E 7000
20G17a	Patton Meadow		28	38S	18E 6800
20G6MP	Quarts Mountain		2	38S	16E 5320
20H1a	State Line	(Cal)	21	48N	11E 5750
20G9AP	Strawberry		4	40S	16E 5600

Abert Lake

20G15a	Bear Flat Meadow		27	36S	19E 5900
20G11a	Cox Flat		16	37S	18E 5750
20G12a	Finley Corrals		11	36S	16E 6000
20G4	Mill Creek		1	34S	17E 6200
20G6MP	Quarts Mountain		2	38S	16E 5320
20G10a	Sherman Valley		15	37S	21E 6600

Summer Lake

20G2AP	Summer Rim		15	33S	16E 7200

Silver Lake

21F12P	Silver Creek	25 &	26	29S	13E 4900
20G13P	Sycan Flat		25	31S	14E 5500

Warner Lake

20G8MP	Camas Creek		5	39S	21E 5720
20G16a	Crane Mountain		13	40S	21E 6020
20H3a	Dismal Swamp	(Cal)	31	48N	22E 7000
19G1m	Hart Mountain		1	36S	25E 6350
20G10a	Sherman Valley		15	37S	21E 6600

Guano Lake

19H1	Bald Mountain	(Nev)	17	45N	21E 6720
19G1a	Hart Mountain		1	36S	25E 6350
19H4a	Little Bully Mt.	(Nev)	8	45N	19E 6600

HARNEY BASIN WATERSHED (12)

Silvies River - Silver Creek

18F7a	Call Meadows		29	20S	33E 5340
19F2	Dellamont Lake		28	19S	26E 5600
19F3	Emigrant Butte		14	21S	27E 5000
19E3P	Idlewild Camp		27	20S	31E 5200
19E9P	Izee Summit		28	16S	29E 5293
19F1	Nook Spring		23	18S	32E 5100
19F1M	Snow Mountain		1	19S	26E 6300
19E7M	Starr Ridge		20	15S	31E 5150
18E4MP	Stinking Water		33	21S	34E 4800
19F4m	Willow-Maid		19	22S	27E 5000

Donner Und Blitzen River

18F6a	Buck Pasture		21	29S	35E 5700
18G1MA	Fish Creek		4	33S	33E 7900
19G1a	Hart Mountain		1	36S	25E 6350
18G1MA	Silvies		35	32S	32½E 6900
18G7a	"V" Lake		31	35½S	32½E 6600

Trout and Whitehorse Creeks

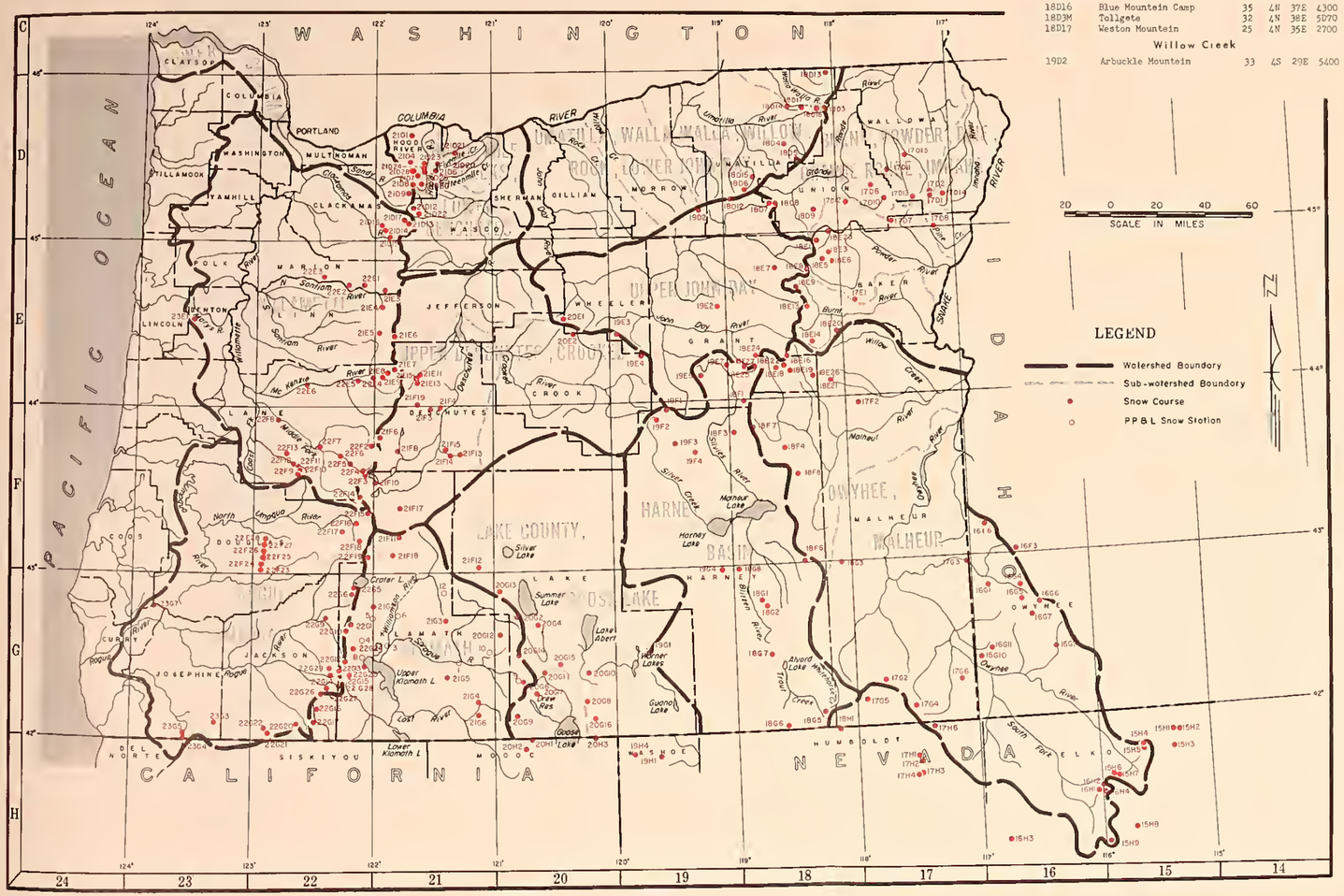
18G6a	Denio Creek		14	41S	34E 6000
18H1	Disaster Peak	(Nev)	8	47N	34E 6500
17G5a	Oregon Canyon		9	40S	40E 6950
18G5a	Trout Creek		10	41S	39E 7800

Harney Lake

18G8	Buckskin Lake		2	30S	30E 5200
19G4	Foster Flat		15	30S	29E 5020

LEGEND

19D2	SNOW COURSE ONLY
19D2M	SNOW COURSE AND SOIL MOISTURE
19D2MA	SNOW COURSE, SOIL MOISTURE AND AERIAL MARKER
19D2A	SNOW COURSE AND AERIAL MARKER
19D2m	SOIL MOISTURE ONLY
19D2A	AERIAL MARKER ONLY
19D2P	SNOW COURSE AND PRECIPITATION GAGE



Map and Index to OREGON SNOW COURSES

7-5-19101-D

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE USDA-SCS-PORTLAND-OREC-1965 M-1874

The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE
- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon State Engineer and Corps of State Watermasters
- Oregon State Highway Engineers
- Soil and Water Conservation Districts of Oregon

COUNTY
- Douglas County Water Resources Survey

FEDERAL
- Department of Agriculture
  - Cooperative Extension Service
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - Weather Bureau
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Land Management
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
  - National Park Service
- Department of National Defense
  - Corps of Army Engineers

PUBLIC UTILITIES
- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES
- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS
- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale-Oregon Irrigation District
- Warmsprings Irrigation District

PRIVATE ORGANIZATIONS
- Amalgamated Sugar Company
- The Crag Rats, Hood River, Oregon

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
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Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation , navigation , mining and industry

"The Conservation of Water begins with the Snow Survey"